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Basis Instructor Training Course: Fundamentals of Environmental Compliance Inspections. Legal, Technical Administration, Communications. Instructor Guide

(U.S.) Environmental Protection Agency, Washington, DC

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BASIC INSPECTOR TRAINING COURSE

FUNDAMENTALS OF ENVIRONMENTAL COMPLIANCE INSPECTIONS

- LEGAL
- TECHNICAL
- ADMINISTRATION
- COMMUNICATIONS

INSTRUCTOR GUIDE

Office of Enforcement and Compliance Monitoring
U.S. Environmental Protection Agency

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PREFACE

This Instructor Guide is designed for use in presenting the training course that inspectors employed by the U.S. Environmental Protection Agency must complete to satisfy the basic training requirements of EPA Order 3500.1, Training and Development for Compliance Inspectors/Field Investigators. The Instructor Guide is based on the student text "Fundamentals of Environmental Compliance Inspections" and includes lectures, group participation exercises, and discussion topics intended to reinforce the materials in the text.

Pilot tests of the classroom course were held in December, 1988, in EPA Regions II and V. More than 50 senior-level inspectors and attorneys from all EPA Regions as well as EPA Headquarters program office staff participated and provided comments and suggestions for refining the course.

Comments and suggestions about the Instructor Guide are welcome and should be addressed to: Compliance Policy and Planning Branch (Mail code LE-133), OECM/OCAPO, U.S. Environmental Protection Agency, 401 M St. S.W., Washington, D.C. 20460.

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Special appreciation is extended to EPA Regions II and V, which hosted pilot tests of the training course, and to the more than 50 senior-level inspectors and attorneys who participated in the pilots and provided valuable comments and suggestions for refining the materials.

RESERVATION

The policies and procedures set forth herein and the internal office procedures adopted pursuant hereto are intended solely for the guidance of U.S. Environmental Protection Agency personnel. These policies and procedures are not intended to be relied upon to create a right or benefit (substantive or procedural) enforceable at law by a party to litigation with the United States Environmental Protection Agency. The Agency reserves the right to take any action that is alleged to be at variance with these policies and procedures or that is not in compliance with internal office procedures.

ORGANIZING AND PRESENTING "FUNDAMENTALS OF ENVIRONMENTAL COMPLIANCE INSPECTIONS"

Successful Regional presentation of the "Fundamentals of Environmental Compliance Inspections" course for basic EPA inspector training requires careful recruitment and training of instructors as well as extensive planning and coordination. The suggestions for organizing and planning for the course are based on the experience gained and comments made during the pilot tests of the course.

A. COURSE MATERIALS

The Text

The 500-page student text has been drawn from exemplary procedures developed by various offices throughout the Agency, to be conveyed now via this training effort to all EPA staff doing inspection work. The materials were reviewed formally throughout the Agency, and should be considered to represent the professional standard for inspection work the Agency wishes to promote. Where policy and practice have not been established clearly or where Regional differences are anticipated, the text provides flexibility.

The Instructor Guide

The Instructor Guide contains guides for each session. They are intended as a basic outline for material to be covered, and include exercises and other group participation activities designed to reinforce lecture and written material and stimulate discussion. The guides also provide suggestions for planning and presenting the session, with suggested timing to assure a balance between lecture and group discussion.

The Instructor Guide also contains hard copy of all handouts and overheads as well as hard copies of the Pre- and Post-Course Assessments that trainees must complete. It is up to the Region (through either the Course Coordinator or individual instructors) to duplicate them as needed for a course offering. A few sessions use photographic slides; one set of slides has been sent to each Course Coordinator.

Pre- and Post-Course Assessments

The Pre- and Post-Course Assessments are designed to evaluate student knowledge before and after taking the course. Comprised of essay questions for which there are no right or wrong answers but rather degrees of quality in answers, the Assessments will help identify student strengths and weaknesses.

The Pre-Course Assessment should be completed as a pre-requisite to taking the course and collected in advance or on the first day of training. This will allow instructors to peruse them so they can see what areas should be addressed in greater or lesser detail during their portions of the course.

It is up to the Region how the individual Post-Course Assessments are used. Options, which are not mutually exclusive, include:

- They can be reviewed by the Course Coordinator, instructors, or others as a means of evaluating how well the course material is being conveyed.
- Students can use their own Assessments to identify areas where they should review the text or seek additional help.
- Supervisors can review Assessments from students in their units to help determine what areas to emphasize or reinforce in on-the-job training.

Agenda and Schedule

The Instructor Guide includes a suggested agenda and schedule for presenting the course. Regions are free to rearrange the schedule, divide the course into different units, or make other changes to accommodate Regional preferences. However, a student cannot be considered to have completed the basic inspector training requirement until he or she has completed training in all of the topics in the course.

The suggested course agenda and instructor guides are designed so that each session builds on earlier sessions. If substantial changes in order are made, instructors will need to meet together and make the adjustments needed to assure that their presentations fit together logically.

Revisions

Comments and suggestions for changes in the text, instructor guides, and other materials should be submitted through the Course Coordinator to the Office of Enforcement and Compliance Monitoring (OECM) in Headquarters, which is responsible for periodic updating and revision of the course. Regional comments will be considered for inclusion in the next revision of materials via a mechanism established under the auspices of the national Inspector Training Advisory Board.

Instructors who develop additional audio-visual materials are also encouraged to send them through the Course Coordinator to OECM so that they can be shared with other Regions.

B. ROLES AND RESPONSIBILITIES

Course Coordinator

One person should be assigned to be the overall Coordinator for the course. Ideally, this should be a permanent assignment to help assure continuity. The Course Coordinator can be one of the instructors, the Course Facilitator (see below), or some other person (e.g., a personnel officer), as desired by the Region.

While he or she may delegate individual tasks to others, the Course Coordinator's responsibilities include the items below.

Ongoing Responsibilities:

- Keeping a roster of instructors;
- Maintaining a supply of student texts and instructor guides and distributing them to Regional subunits as needed;
- Maintaining audio-visual materials for the course;
- Serving as a focal point for Regional comments and suggestions on course content and text;
- Assuring that records of training are being kept;
- Arranging for periodic course and instructor evaluations; and
- Collecting comments and suggestions for course revisions and providing them to OECM.

Responsibilities for Individual Course Offerings:

- Coordinating with the Course Facilitator (if not the same person);
- Scheduling instructors and facilitators;
- Making arrangements for meeting room and equipment;
- Identifying trainees;
- Distributing instructions to trainees, instructors, and facilitators;
- Distributing Pre-Course Assessments in advance to trainees;
- Making Pre-Course Assessment responses available to instructors;
- Arranging for duplication of handouts;
- Assuring that instructors have needed slides, overheads, videos, etc.; and
- Arranging for training certificates and submission of training records.

Course Facilitator

For each offering of the course, a person who has strong meeting facilitation skills (and/or training) should be assigned to assist in the classroom to keep the sessions on schedule and the discussions on track. Ideally, this will be a person other than the instructor for the particular portion of the course. The Facilitator can be the same person as the Course Coordinator described above, an instructor, or a training specialist. Others can also facilitate discussions in individual sessions, but one person should have overall responsibility as Facilitator for the entire course.

The Facilitator has several functions, described below. The Facilitator's Guide that appears next in this Instructor Guide gives more detailed suggestions for what to do on each day of the course and includes copies of quizzes and Pre- and Post-Course Assessments.

Attendance

The Facilitator should ensure that all trainees sign in each day so that they will qualify for a training certificate at the end of the course.

Pre- and Post-Course Assessments

The Course Facilitator should make the set of Pre-Course Assessments available to the various instructors so that they can get a sense of areas where greater or lesser emphasis in their presentations is needed.

The Post-Course Assessment at the end of the course consists of an opportunity for students to revise their original answers on the Pre-Course Assessment as well as answer a few additional questions. Before the last day of the course, the Facilitator should arrange for duplication of the trainees' Pre-Course Assessments as well as sufficient copies of the Post-Course Assessment.

Keeping the Course on Schedule

The Course Facilitator is responsible for keeping the course on schedule. This will generally involve signaling instructors when the lecture portion of a session is running overtime, cutting off tangential discussions, and making sure that the sessions begin on time in the morning and after breaks.

Discussion Facilitator

The Course Facilitator aids the instructor during discussion portions of the session; the specific role for a given session depends on the agreement reached with the session instructor. He or she may field questions for the instructor, ask questions to stimulate discussion, call time, or do anything else required to keep the discussion going or to cut it off as appropriate.

Classroom Assistant

The Facilitator serves as "arms and legs" for instructors. This may include helping to distribute handouts, write comments on flip charts, change overheads or slides, or anything else that is needed to keep things running smoothly.

Quizzes and Homework Assignments

The Facilitator (or designate, such as the first instructor of the day) administers quizzes on the previous day's work at the start of days 2, 3, and 4.

The sample quizzes provided in the course materials are designed to take 5-10 minutes, with a 5-minute class discussion of the answers.

Before each day closes, the Facilitator tells students which chapters to review for the next day's sessions and provides them with any handouts that should be read in advance.

Troubleshooter

Because of the number of instructors involved, there may be a need for last minute schedule changes or other adjustments. Working with the Course Coordinator as needed, the Facilitator makes and announces any changes that are made.

Instructors

Selecting Instructors

Ideally, inspectors and attorneys selected to be instructors should have extensive cross-program experience, with working knowledge about all of the Agency's statutes and programs. An individual instructor with limited cross-program experience will bias his or her presentation too much toward a single program and lose members of the audience who work in other programs.

Instructors should be adaptable, willing to teach procedures that may differ from current practice in his or her office in the interest of promoting national consistency in the inspector profession.

Regions may find that they wish to have "specialists" teach individual sessions of the course. This approach can take advantage of the particular expertise of a given staff member without presenting a major teaching burden on anyone.

- For example, legal topics might be split up among attorneys. An attorney who has extensive courtroom experience might cover topics such as evidence and appearing as a witness; an attorney with broad knowledge of the Agency's laws and procedures might cover environmental laws and the enforcement process.

- Similarly, inspection technique topics such as sampling, interviewing, records inspection, and photography might be covered by individuals with particular interests in these areas.

- Topics which have significant legal and technical components, such as inspection reports, lend themselves well to joint teaching by a senior inspector and an attorney.

- Regions might wish to bring in instructors from the administrative office to present the administration session and from the public affairs office to cover press and public relations. When such "outside" speakers are used, it is essential that they be pre-briefed about the overall content of the course and that a senior inspector be present during the session to help answer questions and relate material as needed to inspection work.

If many instructors are to be involved in an offering of the course, at least one senior inspector should be present for the entire course to assure continuity. Because most topics raise legal questions, an attorney (although not necessarily the same attorney throughout) should also be present at all times.

Instructor Advance Preparation

Most of the people who will serve as instructors for the course have limited teaching experience. Instructors are urged to take the instructor training course offered by the EPA Institute covering such topics as facilitating discussion and effective design and use of audio-visuals.

Instructors should review the complete student text and the instructor guides for all sessions; this assures they know what is being taught in other sessions as well as their own.

For some of the sessions, the instructor guides identify specific handouts or other information that will need to be developed and added to the course on a Regional basis.

The course is designed to use examples and anecdotes from the instructors' own experiences to help explain principles and concepts. Instructors should think in advance about what examples to use, making an effort to balance among programs and/or to explain how a situation in one program might apply to another.

For sessions with role play exercises, instructors may wish to select the "players" in advance to plan and practice to be sure that the desired key points are addressed.

Adherence to Course Materials

The instructor guides provide an outline of the material that should be covered in a given session as well as discussion questions and/or exercises designed to reinforce key points. Since there are many different sessions and there may be many different instructors, general adherence to the session outline will assure that all topics are covered in the course. Instructors are free to rearrange the material and bring in additional points, but they should try to cover all of the key points and -- most importantly -- keep the same balance of lecture vs. exercises and group discussion.

Instructors may find that they disagree with material presented in the text or instructor guide. As noted earlier, these materials were drawn from exemplary procedures developed by various parts of the Agency, and after formal review now represent the professional standard for inspection work the Agency wishes to promote. Flexibility for differences in Regional policy and practice has been built in on many topics so that instructors can explain how things are done locally. An instructor who has serious problems with the materials should submit comments in writing to OECM, through the Course Coordinator, for consideration.

While healthy discussion of pros and cons of various procedures and policies can sometimes be valuable, remember that trainees are likely to become confused if they hear conflicting opinions. Instructors should avoid contradicting the text or each other in front of trainees. If a discussion in class results in a difference of opinion between, say, the attorney and inspector instructors, it should be resolved during a break and the results presented to the class.

Material Duplication

The instructor guides include hard copies of overheads and handouts for each session. The Region (either by individual instructor or through the Course Coordinator) is responsible for duplication as needed for a given course offering.

Color slides have been prepared for some sessions. These are maintained (or their location is known) by the Course Coordinator.

Tips for Instructors

- Overheads and Slides

  Overhead transparencies have been developed for each session. While instructors should feel free to develop their own overheads, the first overhead for each session should always be used. It shows an outline overview of the session and the text chapters that are associated with the session. If the instructor will deviate substantially from the outline, a new overhead may be substituted.

  If different or additional overheads are desired, be sure that they are sufficiently large to be read from a distance of 20 feet. Overheads should contain only key words.

  Do not read the overheads; talk from them. If desired, put additional notes on a hard copy of the overhead and talk from the hard copy while the overhead is on the screen.

- Lecture vs. Exercises and Group Discussion

  Most of the material in the lectures is covered in far greater detail in the text. When time is running over, stop lecturing and go into discussions or exercises. Do not eliminate these interactive segments. An instructor's experience in the real world will be conveyed more readily through answers and comments on the exercises.

- General vs. Program-Specific Examples

  Try to balance examples and anecdotes from several different program areas. Too many examples from a single program will lose members of the audience who work in different programs. When using an example or anecdote, talk about the principle involved and how it applies in other programs. If it is strictly a single program situation, don't use it.

- Discussion Facilitation

  Instructors who find leading discussions difficult should ask the Facilitator to take an active role. This will leave the instructor free to answer questions and comment during the discussion.

- Role Playing Exercises

  The role playing exercises developed for this course are designed to demonstrate important points rather than to allow trainees to practice new skills (the exercise in the session on the Press is an exception). As a result, these "playlets" generally work best if the "players" have had some time to prepare. In some cases, you may want to recruit other instructors to act out role plays since they will have more experience in "how to do it right" and "how to do it wrong." If students are selected, pick ones who have field experience.

- Keeping On Time and On Track

  The course schedule is long and complex, so it is essential for individual sessions to stay on time and on track as much as possible. Take a watch to the podium with you. The Course Facilitator (or a designate) will also be keeping track of your session and alerting you when it is time to move on. As mentioned earlier, skip lecture content if necessary to provide ample time for discussions and exercises.

Instructor Evaluation

Each Region should develop a means for formal and informal evaluation of instructor quality, which may include such methods as: holding periodic meetings of instructors to provide feedback and develop course refinements; written evaluations by trainees; and observations of course offerings by other instructors, training officers, and/or other appropriate staff.

Trainees

Selection of Trainees

Each Region has its own mechanism for selecting trainees to attend the course, developed as part of the Region's plan for implementing EPA Order 3500.1 which sets out the training requirements for EPA inspectors.

Advance Preparation

Student texts should be issued immediately to all current inspectors and to each new inspector as he or she is hired. Students should be required to read or review the text before attending the course.

Students should complete the Pre-Course Assessment as a pre-requisite to attending the classroom session. The Pre-Course Assessments will be collected in advance, or no later than the first day of the course, so that instructors can peruse them to identify particular topics that should be emphasized during the course.

If possible, students should participate in at least one field inspection prior to attending the classroom course.

Homework and Quizzes

Students are expected to do some reading and preparation in the evenings during the course. This will include review of chapters and reading handouts for the next day's session.

An informal quiz on the previous day's material will be given each morning. Students will have 5-10 minutes to complete the quiz, followed by a brief group discussion of the answers.

Post-Course Assessment

At the end of the course, each student is expected to complete a Post-Course Assessment. The Post-Course Assessment is not a test; each Region will determine how the student responses will be evaluated and used.

C. LOGISTICS

Class Size

The recommended maximum class size is 30 trainees. If there are more than 30 in the class, breakout sessions will be needed so that people will have ample opportunity to ask questions and participate in discussions. This will require adjustments to the course schedule; additional facilitators/discussion leaders will also be needed.

The Classroom

Choose a room large enough to accommodate the group without crowding. Students should have ample room at a table or desk to accommodate student texts as well as notepads. For the best learning environment, the room should be kept cool in temperature. The room should have good acoustics so that both instructors and students can be heard from anywhere in the room.

Sound Equipment

Check the sound in the room. Provide microphones to instructors if natural room noise is high or acoustics are poor. Lavalier microphones are best since an instructor can move around the room freely.

Because poor sound is deadly to student concentration, if there are any doubts about the ability of all instructors (including those with soft voices) to be heard, have a microphone available.

Audio-Visual Equipment

An overhead projector, a slide projector, and a flip chart with markers should be available in the meeting room at all times. Instructors needing unusual equipment (such as a VCR) should be asked to specify this in advance.

Experiment to determine the best placement of projection equipment before the course starts.

Room Arrangement

Set up the classroom so that participants can see each others' faces. This facilitates discussion and helps assure that people can be heard. Arrangements that can work include:

U-Shaped:	Students on one or both sides of tables arranged in a "U", instructors at podium or head table.
Hollow Square:	Students and instructors on outside of tables arranged in a square.
Small Tables:	Four to six students on both sides of small tables that are at right angles to front of room so all can see instructors at head of room. This arrangement facilitates small group interaction for exercises.
Chevrons:	Students facing front at tables arranged in slanted rows forming a "V" with an aisle down the center.

The Agenda and Schedule

A detailed agenda, including names and organizational affiliations of the instructors, should be prepared for each offering of the course. To facilitate assignment of chapters to be reviewed in the evening for the next day's session, chapters associated with each session can also be included on the agenda.

The Amenities

While not essential, an effort to provide the little amenities that make life easier for the trainees can pay off by fostering a positive attitude about the training course. Having coffee available in the meeting room can help keep the group from dispersing too widely during breaks. If there are out-of-towners in the course, a list of restaurants and things to do in the vicinity makes them feel welcome. An evening group activity, such as a reception or dinner, can help the trainees and instructors develop better rapport.

SUGGESTED SCHEDULE FOR 4-DAY COURSE
(Start p.m. Monday, end a.m. Friday)

Day 1/Monday

Pre-Course Assessment	(collect before start of course)
Session 1: Introduction/Purpose of Course	1:00 - 1:45 p.m.
Session 2: Role of the Inspector	1:45 - 2:30 p.m.
Break	2:30 - 2:45 p.m.
Session 3: Environmental Laws	2:45 - 3:45 p.m.
Session 4: Overview of Enforcement	3:45 - 5:00 p.m.

Day 2/Tuesday

Quiz	9:00 - 9:15 a.m.
Session 5: Entry/Information-Gathering	9:15 - 10:30 a.m.
Break	10:30 - 10:45 a.m.
Session 6: Evidence	10:45 - 12 noon
Lunch	12:00 - 1:00 p.m.
Session 7: Elements of an Inspection	1:00 - 2:00 p.m.
Session 8: Inspection Planning (break)	2:00 - 4:00 p.m.
Session 9: Administration	4:00 - 5:00 p.m.

Day 3/Wednesday

Quiz	9:00 - 9:15 a.m.
Session 10: Physical Sampling (break)	9:15 - 11:15 a.m.
Session 11: Laboratory Analysis	11:15 - 12 noon
Lunch	12:00 - 1:00 p.m.
Session 12: Records Inspection	1:00 - 2:30 p.m.
Break	2:30 - 2:45 p.m.
Session 13: Interviewing	2:45 - 4:00 p.m.
Session 14: Observations/Photographs	4:00 - 5:00 p.m.

Day 4/Thursday

Quiz	9:00 - 9:15 a.m.
Session 15: Inspection Report (break, lunch)	9:15 - 2:00 p.m.
Session 16: Negotiations	2:00 - 3:30 p.m.
Break	3:30 - 3:45 p.m.
Session 17: Press and Public Relations	3:45 - 5:00 p.m.

Day 5/Friday

Session 18: Appearing as a Witness	9:00 - 10:45 a.m.
Break	10:45 - 11:00 a.m.
Post-Course Assessment	11:00 - 11:45 a.m.
Wrap-Up	11:45 - 12:00 noon

FACILITATOR'S GUIDE

Purpose of the Facilitator's Guide

As described in the section on Organizing and Presenting "Fundamentals of Environmental Compliance Inspections," the Course Facilitator has several key functions:

- Takes attendance
- Collects and makes available the Pre-Course Assessment
- Keeps the course on schedule
- Serves as a classroom assistant
- Administers daily quizzes
- Makes homework assignments
- Serves as a troubleshooter

Because there are many details involved, this section is designed to aid Facilitators in carrying out these functions.

Organization of the Guide

This guide begins with a summary of the Facilitator's responsibilities to be carried out each day of the course. The rest of the guide is organized according to the suggested schedule, which begins Monday afternoon and concludes Friday noon (shown as Day 1 to Day 5). It includes the homework assignments, quizzes, and other details to be covered on each day of the course.

If a different overall schedule is used, or if individual sessions are moved to different days and times, adjustments may need to be made in the homework assignments and quizzes.

Delegation of Facilitator Responsibilities

It is not essential that the Facilitator be the one to perform all functions every day, but it is the Facilitator's responsibility to ensure that someone does each one and that the person assigned is clear about the assignment. For example, the Facilitator might have an instructor from the previous day administer the quiz, or the facilitator might have the last instructor of the day make homework assignments for the next day.

FACILITATOR'S GUIDE
EACH DAY

Room Check: Check lights, sound system, projection equipment, seating. Be sure to know who to call if there are any problems.

Attendance: Develop a method for taking attendance each day; this is required for issuance of training certificates.

Timekeeper: Arrange a way to give instructors a signal about time remaining. One method is to use cards with various times written on them, such as "20 minutes to go," "10 minutes..., "NO minutes...".

Be prepared to nudge a long-winded lecturer forward so that there is ample time for group exercises, a principal reason for classroom training. Similarly, if a discussion goes on too long, tactfully suggest that it might be continued during the next break.

Instructor Check: About 10 minutes before the end of each session, see if the instructor for the next session has arrived. If not, get someone else to make a call to find out where he or she is (you're needed as timekeeper and to take charge if the next instructor is actually late or missing).

Before the session starts, consult with the instructor to find out what assistance he or she needs for the session, such as someone to help with changing overhead slides, facilitating discussion, or passing out handouts.

Pre-Course Assessments: Keep Trainee Profiles and Pre-Course Assessments handy for perusal by instructors. Make photocopies of the Pre- and Post-Course Assessments for Day 5.

Quizzes: About 15 minutes is allocated at the start of each day for the quizzes. There are two approaches to administering the quizzes:

- Hand out the quiz as people arrive and let them work on it while waiting to start. About 7-8 minutes after the scheduled starting time, ask the group to give answers orally. "Stragglers" should catch at least the discussion. This approach has the additional advantage that the quizzes can be collected, and instructors can peruse them to see how well their material was learned.
- Read the questions, and get all answers orally. This may be best when getting started late. Disadvantages are that there is no written record of what people learned or did not learn and less incentive for paying attention.

Homework Assignment: At the end of each day, trainees should be asked to read or review the chapters in the text associated with the next day's session.

Some sessions use rather lengthy handouts; these should be distributed and read the night before so that classroom time is not consumed by excessive reading time.

FACILITATOR'S GUIDE
DAY 1
Includes Sessions 1 - 4

Preparation: Duplicate Trainee Profile and Pre-Course Assessment as needed.

If texts were not distributed in advance to trainees, make sure there are sufficient copies of the text available for all expected trainees.

Pre-Course Assessment: If the trainees received the Trainee Profile and Pre-Course Assessment in advance for completion, collect them as trainees enter the room. Keep them where instructors can look through them to get an idea of the background and experience of the trainees and what they do and do not already know.

If advance distribution was not made, duplicate sufficient copies of the Profile and Assessment for the trainees. Require trainees to complete them as a homework assignment the first evening, and collect them the first thing on the morning of Day 2.

Introductory Remarks: Open the training course with a welcome to participants. Lead all or part of session 1, Introduction. In particular, cover the material shown as "Welcome and Logistics".

Homework Assignment: Text Review for Day 2:

Session 5, Entry/Information Gathering -- Chapter 7
Session 6, Evidence -- Chapter 8
Session 7, Elements of an Inspection -- Chapters 11, 15A, 16
Session 8, Inspection Planning -- Chapter 9
Session 9, Administration -- Chapter 10

Attachments: Trainee Profile
Pre-Course Assessment

Trainee I.D. # ______

FUNDAMENTALS OF ENVIRONMENTAL COMPLIANCE MONITORING
TRAINEE PROFILE

Please complete the information below about your experience. This will help us evaluate how well the course meets the needs of inspectors with different backgrounds.

1) My trainee identification number is: ___________.

2) I have worked as an inspector in EPA for:

( ) less than 1 year
( ) 1 to 3 years
( ) more than 3 years

3) The number of EPA inspections I have already participated in is:

( ) none ( ) 5 to 20
( ) less than 5 ( ) 20 or more

4) The number of times I have been an EPA inspection team leader or have gone out on an inspection solo is:

( ) none ( ) 5 to 20
( ) less than 5 ( ) 20 or more

5) Before joining EPA, I had previous experience at the State or local level as an environmental inspector:

( ) Yes (Specify number of years: ___________)
( ) No

6) My EPA job series is:

( ) Environmental Engineer
( ) Life Scientist
( ) Environmental Scientist
( ) Environmental Protection Specialist
( ) Other (Specify: ________________________________)

Trainee I.D. # ______

7) Check all programs for which you now conduct or expect to conduct inspections/field investigations within the next year:

( ) CAA/Stationary Sources
( ) CAA/Mobile Sources
( ) CWA/National Pollutant Discharge Elimination System
( ) CWA/Wetlands Protection
( ) TSCA/Toxic Substances
( ) FIFRA/Pesticides
( ) RCRA/Hazardous Waste
( ) SDWA/Public Water Supply Supervision
( ) SDWA/Underground Injection Control
( ) Other (Specify: ___________)

8) Currently I work in the following EPA Office:

( ) Regional Environmental Services Division
( ) Regional program office
( ) Headquarters program office
( ) National Enforcement Investigations Center
( ) Other (Specify: ___________)

Trainee I.D. # ______

FUNDAMENTALS OF ENVIRONMENTAL COMPLIANCE INSPECTIONS
TRAINEE PRE-COURSE ASSESSMENT

The purpose of this Pre-Course Assessment is to help inspector trainees determine what they already know about planning for and conducting environmental compliance inspections. The responses will also provide a way for instructors to assess what areas need particular attention during the course.

It is important to note that for many of the questions, there are no right or wrong answers. Based on their experience, trainees will vary in the degree to which their answers show understanding of the complexity of inspection-related activities and the level of detail they can provide.

At the end of the course, your Pre-Course Assessment will be returned to you and you will be asked to revise your answers based on what you have learned in the course; this will be a major part of the Post-Course Assessment.

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1. What do you consider the three most difficult aspects of your job as an inspector, and why are they difficult?

2. Should ever inspection or compliance-related field investigation be conducted and documented as if it might result in an enforcement action? Under what circumstances would it be appropriate not to conduct and document an inspection this way?

3. Suppose you were on routine compliance monitoring inspection. What kinds of information would suggest to you the possibility of criminal behavior? What would you do with your suspicion?

Trainee I.D. # ______

4. Respond true or false, then explain what conditions or circumstances (if any) would change your answer.

   It would be considered denial or withdrawal of consent to enter an inspection site if company officials:

   a) Demanded to see the inspector's credentials

   b) Required the inspector sign a confidentiality agreement

   c) Required the inspector to wear a hard hat

   d) Required the inspector to complete the company's safety training course

   e) Refused to allow the inspector to use the company's photocopying machine to make copies of records

   f) Called their attorneys

   g) Said they would not allow the inspector to take photographs

   Comments:

5. An enforcement case went to trial nine months after the inspection. The Agency must demonstrate that a sample containing contaminated slime was collected at the particular inspection site on the particular date and time in question before it will be accepted by the court as evidence. Besides the chain of custody record, what other documentation the inspector collected about the sample would aid the inspector in preparing for and presenting credible testimony?

Trainee I.D. # ______

6. You have been assigned to conduct a routine compliance monitoring inspection for the program you know most about (e.g., hazardous waste, toxics, water, air, pesticides, drinking water). What should you do in the office before going into the field? How would you go about planning the inspection? What would your inspection plan include?

   Inspection program: ________________.

   (Note: If you are very new and have limited program knowledge, you may answer the question generally.)

Trainee I.D. # ______

7. Explain why it is important to follow Standard Operating Procedures (SOPs) and provide at least two reasons why any deviation from the SOPs must be fully explained and documented.

8. A large facility is required to inspect each of its storage tanks every week for leaks, to fix any leaks within five days, and to keep records of the results. The company owns 350 tanks in five different locations at the site, but all the records are kept in a central location in two file cabinets. You are assigned to assess compliance with this requirement and have about three hours for the task. How would you go about reviewing the records? What would you do if you found "missing" weeks?

9. At the close of an inspection, company officials ask whether you found any violations. What would you say?

Trainee I.D. # ______

10. You have just completed an inspection in which you found several potentially serious violations. As you leave the facility/site, you are confronted with a TV reporter and several newspaper reporters who want to know what you found and what EPA is going to do about it. What do you tell them? What do you not tell them? Why?

11. What are the dangers of relying solely on an inspection checklist as the record and inspection report for an inspection?

12. You are served with a subpoena to give a deposition to the opposing side in an enforcement case for which you were the inspector. What would you do to prepare?

FACILITATOR'S GUIDE
DAY 2
Includes Sessions 5 - 9

Preparation:	Duplicate copies of Day 2 Quiz as needed.
Quiz:	Administer Day 2 Quiz; have group discussion of the answers.
Homework Assignment:	Text Review for Day 3: Session 10, Physical Sampling -- Chapter 13 Session 11, Laboratory Analysis -- Chapter 18 Session 12, Records Inspection -- Chapter 12 Session 13, Interviewing -- Chapter 14 Session 14, Observations/Photographs -- Chapter 15
Attachments:	Day 2 Quiz Answer Key for Day 2 Quiz

Trainee I.D. # _______

QUIZ
Morning of Day 2

1. Name two common problems that adversely affect the quality of EPA inspections.

2. Name three common roles of the EPA inspector.

3. What two kinds of impropriety must Federal employees avoid?

4. What is the most common reason for a claim of Confidential Business Information?

5. Name one difference between civil and criminal enforcement.

6. What should you do if you witness or suspect a criminal violation of an environmental statute?

ANSWER KEY
Day 2 Quiz

1. Name two common problems that adversely affect the quality of inspections.

   Insufficient planning; procedural error; inadequate documentation; sampling error; incomplete inspection file

2. Name three common roles of the EPA inspector.

   Official representative; fact-finder; enforcement case developer; enforcement presence; technical educator; technical authority

3. What two kinds of impropriety must Federal employees avoid?

   Appearance or reality of bias

4. What is the most common reason for a claim of Confidential Business Information?

   Trade secret

5. Name one difference between civil and criminal enforcement.

   Search with consent of warrant based on "probable cause;" Constitutional guarantees for defendant; standard of proof is higher than for civil cases -- "beyond a reasonable doubt;" Jencks Act requirement for government to turn over all information to defendant; penalties more severe

6. What should you do if you witness or suspect a criminal violation of an environmental statute?

   Refer it to the RAIC or SAIC in the criminal investigation unit

FACILITATOR'S GUIDE
DAY 3
Includes Sessions 10 - 14

Preparation: Duplicate copies of Day 3 Quiz as needed.
Duplicate (or obtain from instructors) copies of inspection report and negotiations handouts for homework reading.

Quiz: Administer Day 3 Quiz; have group discussion of the answers.

Homework Assignment: Text Review for Day 4:

Session 15, Inspection Report -- Chapter 17A, B
Session 16, Negotiations -- Chapter 19B
Session 17, Press and Public Relations -- Chapter 20A

Handout Readings:

Sample Inspection Reports (Handout 15-2)
Case of the Unmanaged Negotiation (Handout 16-1)
Crush and Destroy (Handout 16-2)

Attachments: Day 3 Quiz
Answer Key for Day 3 Quiz

Trainee I.D. # ________

QUIZ
Morning of Day 3

1. Name three of the bases upon which EPA may enter a facility.

2. Name two criteria for the admissibility of evidence.

3. How should the inspector answer if facility officials ask if any violations were found during the inspection?

4. Name three kinds of records that should reviewed prior to an inspection.

5. List three topics that should be addressed in the inspection plan.

6. What must an inspector do before making a purchase?

ANSWER KEY
DAY 3 QUIZ

1. Name three of the bases upon which EPA may enter a facility.

   Consent; warrant; emergency circumstances; plain view/open fields doctrine; pervasively regulated industries

2. Name two tests for the admissibility of evidence.

   Authentic, relevant, foundation

3. How should the inspector answer if facility officials ask if any violations were found during the inspection?

   Inspector should never say: "no violations" or "everything checks." Can say: there are areas the facility might want to check, point out particular regulations, there are some items that he/she will need to get an Agency decision on

4. Name three kinds of records that should be reviewed prior to an inspection.

   Facility correspondence, permit, past inspection reports

5. List three topics that should be addressed in the inspection plan.

   Objectives, tasks, procedures, resources, schedule

6. What must an inspector do before making a purchase?

   Get the approval from authorized procurement staff

FACILITATOR'S GUIDE
DAY 4
Includes Sessions 15 - 17

Preparation: Duplicate Day 4 Quiz
Have Pre-Course Assessments that were completed by trainees on Day 1 photocopied for return to them on Day 5

Quiz: Administer Day 4 Quiz; have group discussion of answers

Homework Assignment: Text Review for Day 5:

Session 18, Appearing as a Witness - Chapter 19A
General review for Post-Course Assessment

Attachments: Day 4 Quiz
Answer Key for Day 4 Quiz

Trainee I.D. # ________

QUIZ
Morning of Day 4

1. Name three of the technical factors involved in designing a physical sample collection effort.

2. Why is chain of custody important?

3. Why should inspectors consult with laboratory personnel?

4. What factors might influence the inspector's selection of specific records to review?

5. What kinds of facility personnel are appropriate for the inspector to interview?

6. Name a common way to show size in a photograph.

ANSWER KEY
DAY 4 QUIZ

1. Name three of the technical factors involved in designing a physical sample collection effort.

   Data quality objectives, representativeness, SOPs, number of samples, sample volume, analytic requirements

2. Why is chain of custody important?

   Show sample has not been tampered with or contaminated

3. Why should inspectors consult with laboratory personnel?

   Can provide technical advice on sampling, analysis, scheduling

4. What factors might influence the inspector's selection of specific facility records to review?

   Amount of time available, bias toward records with greater likelihood of problems.

5. What kinds of facility personnel are appropriate for the inspector to interview?

   Anyone who might have information

6. Name a common way to show size in a photograph.

   Photograph the item next to something of known size, such as a ruler or a person

FACILITATOR'S GUIDE
DAY 5

Includes Session 18 and Post-Course Assessment

Preparation:	Duplicate Pre-Course Assessments that were completed by trainees Duplicate Post-Course Assessments
Post-Course Assessment:	Distribute and administer Post-Course Assessment (includes revisions to Pre-Course Assessments). Collect Post-Course Assessments, and deliver to appropriate office according to Regional procedures.
Wrap-Up:	Make closing remarks, covering such items as filling out training forms and receiving training certificates.
Attachments:	Post-Course Assessment

Trainee I.D. # _______

FUNDAMENTALS OF ENVIRONMENTAL COMPLIANCE INSPECTIONS
TRAINEE POST-COURSE ASSESSMENT

At the beginning of this course, you filled out a Pre-Course Assessment which was designed to find out what you already knew about preparing for and conducting inspections. Many of the questions were deliberately difficult and complex -- yet they represented situations and problems inspectors are commonly called upon to address. This Post-Course Assessment provides an opportunity to show whether and how you are now better prepared to approach the work of being an inspector.

We are returning your Pre-Course Assessment papers to you for you to correct, add detail to, and otherwise revise based on what you have learned in this course. Please pay particular attention to question 6, which has to do with planning for an inspection. There are also several new questions, but please work on revisions to your earlier answers first and begin the new questions only if time permits.

This is an "open book" exercise, so you may consult the text or ask course instructors for assistance.

If you use additional paper, please be sure that your trainee identification number is on each sheet and the question number appears with the answer.

Trainee I.D. # _______

Post-Course Assessment Questions

Begin work on these after completing revisions to your Pre-Course Assessment answers

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13. What information should be contained in an inspection report? What level of detail is needed about each aspect of the inspection? What should never be included in the inspection report?

14. An inspector was collecting evidence to show that a container did not bear the required label stating what substance was in it. He took photographs of all four sides of the container and drew a sketch of the location where the container was found. Was this sufficient proof that the container was unlabeled?

15. Explain what information is in a program enforcement response policy and why it is important for inspectors to be familiar with it as well as annual program planning documents.

Trainee I.D. # ________

16. List at least four significant mistakes an inspector can make, and discuss the potential consequences of these mistakes.

Trainee I.D. # ________

Post-Course Assessment Answer Sheet

Be sure that the question number appears with each answer.

SESSION 1
TOPIC: INTRODUCTION TO FUNDAMENTALS COURSE
INSTRUCTOR'S OVERVIEW

Time: 45 minutes

Purpose

Provide course overview, logistics

Explain why course was developed

Introductions and get-acquainted discussion

Identify inspection-related problems inspectors have encountered, and relate to course content

Key Points

Inspectors are critical to ensuring that the nation's environmental laws are implemented.

The inspectors's job is complex, requiring legal, technical, and communications skills.

Advance Preparation

This session may be presented by the course facilitator and/or another instructor. If to be presented by more than one person, consult in advance on who will cover which portions.

Text reference Chapter 5.

If Region distributed Trainee Profiles and Pre-Course Assessments in advance and they have not yet been collected, collect them as part of the introductory session. If they have not yet been distributed, pass them out at this session. Have the Profiles completed immediately and collect them. The Pre-Course Assessment should be completed as a homework assignment the first night. (See also Facilitator's Guide.)

Be familiar with background of trainee group, such as program affiliation, discipline, length of experience in EPA and as an inspector, frequency of involvement with inspections. (This information is on the Profiles.)

Find an example or two of enforcement cases that were affected by poor quality inspection work, and examples of cases that went well because of good quality inspection work.

Equipment

Overhead Projector

List of Visuals

1-A -- Session Topics
1-B -- Why This Course?
1-C -- Course Schedule
1-D -- GS/GM Series Frequency for Inspection Personnel
1-E -- Discussion Questions
1-F -- Features of a Good Quality Inspection
1-G -- Consequences of Poor Inspection Quality

Suggested Teaching Outline

Lecture: Welcome and Logistics	5 minutes
Lecture: Introduction to Course	10 minutes
Group Introductions/Discussion	10 minutes
Lecture: Importance of Inspection Quality	10 minutes
Discussion: Consequences of Poor Inspection Quality	10 minutes

INSTRUCTOR NOTES	SUGGESTED CONTENT
LECTURE (5 min.)	**WELCOME AND LOGISTICS**
The purpose of this portion of the session is to welcome trainees, set ground rules for the course, and give a sense of the schedule and flow of the course. The notes in the Suggested Content column and some of the overheads are based on the suggested schedule; they will need to be modified if changes in the course schedule have been made.	Introduce yourself (and other session instructor), tell a little about your background and EPA experience. Welcome trainees. Cover course ground rules, such as: Prompt starting time in morning/after breaks Attendance requirements Homework and quizzes Cover other logistics, such as where to eat, any special dinner plans, transportation, etc.
LECTURE (10 min.)	**INTRODUCTION TO COURSE**
Overhead 1-A **Summary of Topics**	In this first session, we are going to explain the background and purpose of the course and how the several days we will be together are organized. Then we want to learn a little about you and what experiences you have already had. We will end this session with a discussion of what makes a good quality inspection and why it is important.
Overhead 1-B **Why this Course**	**Why this Course?** • Inspections are the cornerstone of the Agency's enforcement effort, which is essential to the credibility of Agency programs. • If an inspector did not find and properly document a violation, there can be no enforcement. • Inspectors have an extremely complicated job that requires working knowledge of laws and regulations as well as legal and technical procedures.

INSTRUCTOR NOTES	SUGGESTED CONTENT
	• Inspectors must also master the "art" of investigation -- the ability to ask the right questions, follow the paper trail, check out an inconsistency. • To strengthen the Agency's enforcement capacity, a new EPA Order requires all EPA inspectors to complete basic and program-specific inspector training. • This course fulfills basic training requirements in legal, technical, administrative, and communications aspects of inspections; inspectors must also have health and safety training. The course does not focus on any one program or set of regulations. Instead, it is designed to provide fundamentals needed for performing inspections in any environmental program.
The overheads and the Suggested Contents column are based on the suggested schedule for the course. If the schedule has been modified, make appropriate changes to the materials.	**Course Schedule** I would now like to give you an overview of the course schedule. After the introductory session today, we will have a session on the many roles the inspector plays. The next segment of the course covers the legal foundation of our inspections, including a summary of environmental laws, an overview of enforcement, entry authorities, and evidence. These sessions will take place this afternoon and tomorrow morning.
Overhead 1-C **Summary of Course Schedule**	The remaining sessions will roughly track the chronology of an inspection. It begins tomorrow afternoon with a session on the elements of an inspection, followed by sessions covering various aspects of preparing for an inspection. We will spend the next day on what happens while at the inspection site, focusing primarily on the information collection activities used to determine compliance: physical sampling, records inspection, and making observations.

On Day 4 (Thursday) we begin to discuss post-inspection activities. We will first spend several hours on writing a quality inspection report, one of the most important aspects of the inspector's job. We will then discuss settlement negotiations and handling the media and the public.

On the last day, we will have a session on appearing as a witness. We will end with a Post-Course Assessment to help us evaluate what you have learned.

There is much material to cover and the schedule is tight. But at the end we hope you will have a good foundation in all of the many aspects of the inspector's job.

Overhead 1-D
GS/GM Series Frequency for Inspection Personnel

Inspector Profile Survey Results

First, we thought you would be interested to know about your counterparts throughout EPA. A survey of inspectors/field investigators in 1987 showed:

Total of 1,640 inspectors in EPA.

Ask for show of hands for each category to compare trainee group with all EPA inspectors.

GS/GM Series Frequency:

45.9% -- Environmental Engineer
21.2% -- Environmental Scientist
12.4% -- Environmental Protection Specialist
4.0% -- Life Scientist
3.2% -- Geologist
2.1% -- Hydrogeologist
1.8% -- Chemist
9.4% -- Other

Of the individuals who perform inspection work:

- 2/3 spend less than 20% of their time in the field.
- 3/4 are in grades 9 - 12.
- 80% do inspections in only one program area.

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
DISCUSSION (15 min.)	**INTRODUCTIONS**
Introductions	Go around the room and have trainees introduce themselves and tell about their backgrounds (e.g., years with EPA, technical or other discipline, other experience, program(s) for which they conduct inspections).
Discussion Questions **Overhead 1-E Discussion Questions** Follow introductions with one or more of the discussion questions. This will help break the ice as well as allow the instructor(s) to further tailor the training if needed to cover topics of interest to the trainee group. Encourage all to participate, but do not force participation. It may be necessary to get the discussion started with a story of your own.	The purpose of the discussion questions is for inspectors to identify problems they have encountered in performing inspection-related tasks, and their consequences. • What was the most difficult situation you ever encountered on an inspection? How did you handle it? • Did you ever have to testify in an enforcement proceeding about something you did on an inspection? What was the hardest part? In retrospect, was there anything that you might have done differently in performing or documenting the inspection that would have made it easier? • What do you think are the most important skills an inspector needs? Why?
DISCUSSION (10 min.)	**IMPORTANCE OF INSPECTION QUALITY**
	EPA has had many successes over the years in bringing violators of environmental laws into compliance. This would not have been possible without sound technical work and adherence to legal requirements by the EPA inspectors who performed the investigative work as well as their solid support to case development activities. At the same time, the Agency has gained experience in what can go wrong with regard to inspection quality and the consequences these problems have.

INSTRUCTOR NOTES

Overhead 1-E
Features of Good Quality Inspections

Use examples of how good inspection work led to prompt, effective resolution of a case.

Use your own "war stories" to illustrate problems that have been encountered in the Region or program with regard to inspection quality.

The fullest perspective will be provided if both the senior inspector and senior attorney instructors participate in this discussion.

SUGGESTED CONTENT

Following are features of good quality inspections:

Adequate planning, e.g., brought correct sampling equipment, facility's permit conditions were known to inspector, good coordination between inspector and attorney.

Adherence to proper procedures, e.g., complied with (and documented) requirements for lawful entry.

Thorough documentation, e.g., chain of custody record complete; ability to trace a specific sample (photograph, record) to a specific member of the inspection team, location, and identification number; suspected violation adequately substantiated by evidence.

Correct sampling, e.g., SOPs were followed, cross-contamination samples were representative.

Complete inspection file, e.g., full inspection report, required notices and forms present, adequate substantiating evidence.

This course is designed to enhance the inspector's skills in all of these areas.

DISCUSSION (10 min.)

Overhead 1-F
Consequences of Poor Inspection Quality

Encourage trainees to talk about specific examples of these problems.

CONSEQUENCES OF POOR INSPECTION QUALITY

Problems in quality and completeness of inspections can:

- Cause the Agency to draw the wrong conclusion about a facility's compliance status

    e.g., a facility is judged to have no violations because the inspector did not inspect thoroughly

- Delay and add to the cost of pursuing an enforcement action

    e.g., a second inspection is needed to collect evidence that should have been collected on the first one

INSTRUCTOR NOTES **SUGGESTED CONTENT**

- Create unnecessary obstacles to successful prosecution of a case

  e.g., the defendant challenges the Agency's evidence because the inspector did not follow Standard Operating Procedures

- Cause the Agency not to pursue an enforcement action against a violator

  e.g., poor quality of inspection report and incomplete file lead Agency to decide that bringing a case would be too risky

- Result in the Agency losing a case

  e.g., the judge rules that critical evidence cannot be admitted because of inadequate authentication.

Recap on Purpose of Course

The course is designed to improve the inspector's ability to respond to problems and conduct high quality inspections.

SESSION 1: INTRODUCTION

- Why This course?
- Course Schedule
- Inspector Profile
- Importance of Inspection Quality

Text: Chapter 5

WHY THIS COURSE?

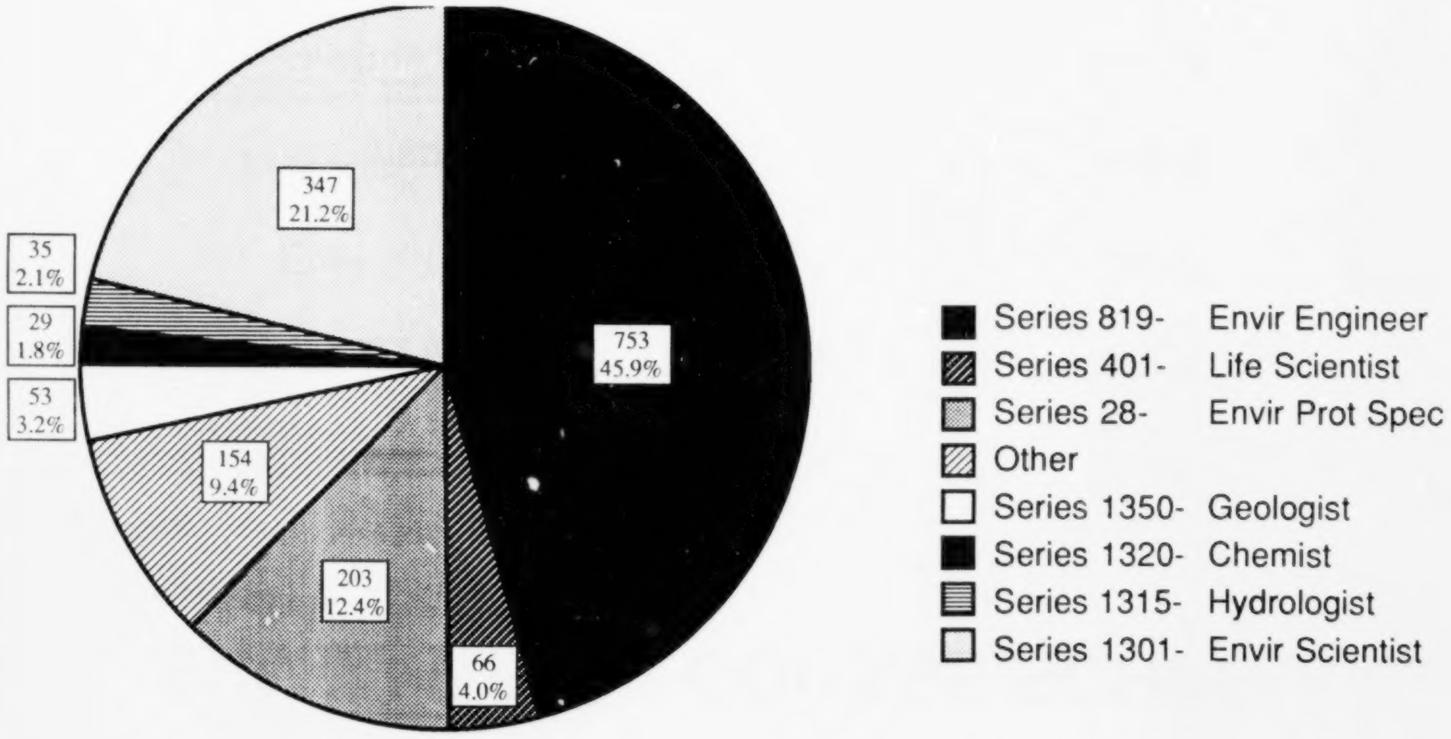
- Inspectors are critical to ensuring that the Nation's environmental laws are implemented.
- Inspector's work is very complex, involving:
  - Legal
  - Technical
  - Communications
- Course to provide foundation

SUMMARY OF COURSE SCHEDULE

• Introduction/Role of Inspector	Day 1
• Legal Foundation	Day 1, 2
• Elements of an Inspection	Day 2
• Pre-Inspection Activities	Day 2
• On-Site Activities	Day 3
• Post-Inspection Activities	Day 4, 5
• Post-Course Assessment	Day 5

GS/GM SERIES FREQUENCY DISTRIBUTION OF EPA INSPECTORS

Grand Total-1640 Inspectors



Source: "Inspector Profiles" by Inspector Training and Development Work Group, 5/87

DISCUSSION QUESTIONS

- What was the most difficult situation you ever encountered on an inspection? How did you handle it?
- Did you ever have to testify in an enforcement proceeding? What was the hardest part?
- What do you think are the most important skills an inspector needs?

13

FEATURES OF GOOD INSPECTIONS

- Adequate planning
- Adherence to procedures
- Adequate documentation
- Correct sampling
- Complete inspection file

CONSEQUENCES OF POOR INSPECTION QUALITY

- Draw wrong conclusions about compliance
- Delay and add cost to enforcement action
- Cause unnecessary obstacles to successful prosecution
- Result in decision not to prosecute
- Result in the government's case being lost

SESSION 2
TOPIC: ROLE OF THE INSPECTOR
INSTRUCTOR'S OVERVIEW

Time: 45 minutes

Purpose

Provide an overview of the roles and functions performed by inspectors that will be covered in more depth during the course.

Provide information on confidential business information and ethics issues of concern to inspectors.

Key Points

Inspectors are involved in virtually every aspect of the compliance and enforcement program.

Inspectors have access to confidential data and must handle it accordingly.

When faced with an ethics question, when in doubt, don't!

Advance Preparation

Text reference Chapters 4B, 5

Prepare a handout (3-hole punch for insertion into text) explaining Regional requirements for obtaining certification and associated training for access to confidential business information.

Prepare a handout (3-hole punch) with the name and phone number of the ethics official(s) the inspectors should contact if they need advice on ethics questions.

Equipment

Overhead projector

List of Visuals

2-A -- Topic Summary

2-B -- Role of the Inspector

2-C -- State-EPA Enforcement Agreements

2-D -- Confidential Business Information

2-E -- When in doubt, Don't!

Suggested Teaching Outline

Lecture:	Role of the Inspector	15 minutes
Lecture:	The Federal-State Relationship	10 minutes
Lecture:	Confidential Business Information	5 minutes
Lecture:	Ethics Considerations for Inspectors	15 minutes

INSTRUCTOR NOTES	SUGGESTED CONTENT
Introduction	Introduce yourself, including background, EPA experience.
Overhead 2-A **Topic Summary**	In this session, we are going to discuss the many roles inspectors play in EPA, talk about the Federal-State relationship in administering environmental programs, and then talk a little about confidential business information and ethics as they may affect inspectors.

LECTURE (15 min.)

ROLE OF THE INSPECTOR

Inspectors are the keystone in the Agency's compliance and enforcement program. Without inspectors, there would be no enforcement cases, for they are the ones who collect the information upon which such cases are based.

The inspector's work must meet the highest standards for ultimate success in an enforcement action.

An inspector's failure to substantiate what he or she saw adequately may mean that EPA cannot take the case to court and win a large penalty, instead settling for a lesser action with little impact on the Agency's enforcement actions.

Inspectors are generally involved in virtually every aspect of the compliance and enforcement program:

- Selecting specific facilities to inspect
- Determining scope and objectives of the inspection
- Coordinating with appropriate legal, technical, and program staff
- Evaluating the need for a warrant and developing the information required to support an application if needed
- Assessing whether a violation might exist and collecting substantiating evidence

- Compiling the information collected and writing the report that will be the basis for the Agency's decision regarding an enforcement action

- Collecting additional evidence if needed to support an enforcement case

- Participating in (or supporting) settlement negotiations

- Serving as a government witness in enforcement hearings or trials

- Checking to make sure that a facility has taken the steps required by the enforcement action to return to compliance

During this course, we will be discussing these and many other functions performed by inspectors.

The inspector's role goes beyond these functions, however.

Overhead 2-B
Role of the Inspector

The basic responsibilities of inspectors can be grouped into the following general categories:

- Official representative: The inspector represents EPA and may be the only Agency official ever seen by a plant manager. This requires tact, a professional attitude, and diplomacy.

- Fact-finder: The inspector assesses whether the facility is in compliance with laws and regulations. This requires extensive knowledge of the requirements and skill in obtaining information and following up leads to identify the less obvious violations.

- Enforcement case developer: The inspector collects and preserves evidence of noncompliance. Since the inspection is usually the primary basis for the government's case, good documentation is essential. The inspector is often a key witness.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

- Enforcement presence: The inspector "shows the flag," creating a visible presence of government interest in the environmental status of facilities; the potential for being inspected creates an incentive for compliance.

- Technical educator: The inspector serves as a source of regulatory information and may provide technical assistance to facility managers by directing them to sources of technical information.

- Technical authority: Inspectors may be called upon to help the Agency interpret regulatory requirements, assess the adequacy of control measures, interpret technical data, and assess environmental impacts.

Go through the list and get a show of hands. Encourage discussion of what makes them comfortable or uncomfortable in these roles. Stress that this course is designed to enhance their skills in each of these areas.

Discussion of the role of the inspector:

- Are there any functions described above that you do not perform?

- Which of these roles are you most comfortable performing? In which areas do you you feel least prepared?

LECTURE (10 min.) — THE FEDERAL-STATE RELATIONSHIP

Nearly all of the programs developed under EPA's statutes can be delegated to approved States for implementation, including such aspects as permit writing and conducting compliance monitoring and enforcement. States now conduct between 80% and 90% of all environmental compliance inspections.

The Federal-State relationship in enforcement is particularly sensitive. While the States have primary responsibility for enforcement, EPA retains the ability to file cases in the States and must conduct oversight of State performance.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

The EPA inspectors play an important role in the State-EPA relationship. Effective communication promotes cooperation and technology transfer and improves the overall enforcement effort at both Federal and State levels.

Overhead 2-C
State-EPA Enforcement Agreements

EPA and the States have developed State-specific State/EPA enforcement agreements which:

- Reflect the criteria and standards EPA will use in oversight of State programs.
- Reflect the criteria for when EPA will directly enforce in a delegated State.
- Specify the data States will report to EPA.

EPA does not ordinarily conduct routine inspections in delegated States. However, EPA may join with the State on an inspection at the State's request or to perform oversight. On occasion, EPA might perform an independent inspection in a State, such as to support a direct EPA enforcement action or as a followup to ensure compliance with a consent decree.

Oversight inspections are conducted by EPA to evaluate the quality of State inspection activities, identifying both strengths and weaknesses and identifying steps that can be taken together to improve any weaknesses on the part of the inspector and the entire program.

The success of oversight inspections is largely dependent on the communications that surround them. It is important to establish clear EPA and State expectations in advance on the criteria for selecting specific candidates for oversight inspections.

INSTRUCTOR NOTES	SUGGESTED CONTENT
	Before an oversight inspection, the roles and responsibilities of EPA and the State inspector should also be clearly set out on such matters as who has the lead role; who writes the report; and who will followup with an enforcement response. Finally, there should be agreement on how deficiencies will be identified and how follow up action to correct problems will be undertaken.
Ask the group for problems or other experiences they have had with regard to oversight inspections and/or Federal-State relationship.	This is one of the trickier aspects of EPA's relationship with the States. Would anyone like to share their experiences with oversight inspections?

LECTURE (5 min.)

CONFIDENTIAL BUSINESS INFORMATION

Inspectors gain access to and collect information that companies would not ordinarily make available to outsiders.

While the specific provisions vary, EPA is required under its laws to protect trade secrets and confidential business information (CBI) of the regulated community if a company so requests.

Regulations on how EPA must handle such information are at 40 CFR Part 2.

CBI is information such as process, formulation, sales, and production data that could hurt a company's competitive position if it became publicly known.

Because of the additional security measures and the potential risk of accidential disclosure, EPA policy is to avoid collecting confidential information that is not necessary to carrying out Agency functions.

By law and regulation, EPA must inform companies of their right to claim information requested by the Agency as confidential. This includes information collected on an inspection. Forms and/or other procedures have been developed in each program for doing so.

Inspectors cannot refuse a CBI claim. If an inspector does not beleive specific information is legitimately CBI, the Office of Regional Counsel should be consulted.

Overhead 2-D
Confidential Business Information

Generally, procedures for handling CBI include the following:

- Only authorized persons can see the data.
- An access log is maintained showing everyone who has had access.
- There may be limits on making copies of the data.
- It is important to remember that any reports, case files, laboratory reports, etc., that are generated from confidential data are also confidential data and must be handled accordingly.

Inspectors must have special training and certification to handle CBI, usually including training in procedures used in the office and on the road for handling CBI. Contact the following for details:

(insert contact here; give handout to trainees)

LECTURE (15 min.)

ETHICS CONSIDERATIONS FOR INSPECTORS

Integrity and professional impartiality are crucial. The inspector must be impartial and appear to be impartial.

Enforcement actions based on the inspector's work may represent a major commitment of Agency funds and time. Success before an administrative law judge or U.S. Court may hinge on the inspector's freedom from bias or even apparent bias.

It is critical for inspectors to be familiar with and comply with laws and regulations regarding conflict of interest and ethics.

There is a designated Ethics Official in the Office of General Counsel in Headquarters (Don Nantkes).

The Deputy Ethics Official for this office is:

(insert name here)

Conflict of Interest

It is against the law (18 U.S.C. Section 208(a)) to participate in any proceeding in which the employee (or spouse, minor child) has a financial interest, regardless of amount.

Examples of prohibitions are certain roles in nonprofit organizations, relationships with potential employers, and stock ownership.

Penalties are up to a $10,000 fine and two years in prison.

INSTRUCTOR NOTES

Ask group for examples of each point, and discuss both actual misconduct and the appearance of misconduct.

SUGGESTED CONTENT

Standards of Conduct

By regulations at 40 CFR Part 3, EPA employees must avoid any action that might result in or create the appearance of:

- Using public office for private gain (e.g., recommending a contractor that employs an inspector's son)
- Giving preferential treatment to anyone (e.g., agreeing to return the following day for the facility's convenience)
- Impeding Government efficiency or economy (e.g., staying in a fancy hotel, even at the government rate)
- Losing independence or impartiality (e.g, becoming social friends with facility officials)
- Making a Government decision outside official channels (e.g, telling a facility of a violation during the inspection)
- Adversely affecting public confidence in EPA or the Government (e.g., being convicted of an unrelated crime).

Questions and Answers

Solicit ethics questions from the trainees. The points below may help in responding to them; you may wish to raise these points if specific questions do not come up.

Gifts, favors, luncheons:

- Avoid them under circumstances that might be construed as influencing the performance of official duties. Eat before you arrive at the facility, if possible.
- There is an exemption for inspectors in accepting food and refreshments of nominal value in the ordinary course of a luncheon or dinner meeting or other meeting. Always offer to pay for the meal.

- Use this exemption only when absolutely essential, such as in remote locations where there are not public eating places.

Use of Information:

- All data collected on an inspection is for official use only.
- Don't speak in a derogatory manner of any product, manufacturer, or person.
- Information that has not been made available to the general public cannot be used to further a private interest.

Vehicles:

- Avoid renting vehicles that appear flashy or expensive.
- Motor vehicles owned, rented, or leased by the Government cannot be used for non-official purposes.

Financial interests:

- If you have stock in a company or a member of your family works there, recuse yourself from the inspection.

Overhead 2-E
When in doubt, don't!

A good rule of thumb: when in doubt, don't!

> WHEN IN DOUBT, DON'T! CONSULT FIRST WITH YOUR ETHICS OFFICIAL.

SESSION 2: ROLE OF THE INSPECTOR

- Federal-State Relationship
- Confidential Business Information
- Ethics Considerations

Text: Chapters 4B, 5

ROLE OF THE INSPECTOR

- All stages/aspects of compliance and enforcement program
- Official representative
- Fact finder
- Enforcement case developer
- Enforcement presence
- Technical educator
- Technical authority

STATE-EPA ENFORCEMENT AGREEMENTS

- Criteria and standards for EPA oversight
- Criteria for direct EPA enforcement
- Specify data State will report to EPA

CONFIDENTIAL BUSINESS INFORMATION

- Only authorized personnel can see the data
- Access log maintained
- Limits on copies made
- Any report generated from CBI is also CBI

WHEN IN DOUBT, DON'T!

CONSULT WITH YOUR ETHICS OFFICIAL FIRST

SESSION 3
TOPIC: ENVIRONMENTAL LAWS
INSTRUCTOR'S OVERVIEW

Time: 60 minutes

Purpose

Provide an overview of the major EPA statutes

Discuss typical inspection activities under each statute

Key Points

While each statute is different, there are many common features.

Inspectors should be able to recognize and refer major violations of other EPA programs.

Advance Preparation

Text reference Chapter 2

Think of a recent case or two to use as illustrations to explain the types of enforcement cases that arise out of the various laws.

Equipment

Overhead projector

List of Visuals

3-A -- Summary of Major EPA Statutes
3-B -- Selected Program Provisions of 40 CFR

Suggested Teaching Outline

Lecture: Introduction to EPA Laws	10 minutes
Lecture/Discussion: EPA Laws in a Nutshell	50 minutes

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
Introduction	Introduce yourself, including background, EPA experience, and your role in the course.
LECTURE (10 min.)	**INTRODUCTION TO EPA LAWS**
This session is a brief overview of EPA laws, covering a lot of territory in a short amount of time.	EPA administers many different laws, and each is complex. The regulatory programs that have grown out of these laws are also complex. Each law is covered in great detail in Chapter 2 of your text, and of course, learning the laws and regulations for your particular program is a major part of your program-specific training. In the brief period that we have here today, I want to highlight some of the common features of our environmental laws and discuss their major provisions. This overview should help you understand the scope of the Agency's responsibilities and how the program you work for fits in. We also hope that you will learn some key ways in which other statutes can be violated so you can recognize them in the field and refer them to the appropriate office for investigation.
	Historical Perspective
Overhead 3-A **Summary of Major EPA Statutes**	There is no comprehensive environmental law. Rather, we have a series of laws that were enacted to address particular environmental issues. FIFRA -- 1946 CAA, CWA -- 1960s SDWA, TSCA, RCRA -- 1970s CERCLA -- 1980

EPA was formed by Presidential order in 1970. Before then, environmental responsibilities were scattered among many agencies. Interior, Corps of Engineers, Agriculture, and some other Federal agencies still retain some environmental responsibilities, but they cooperate with EPA under a variety of agreements. For example, EPA and the Corps of Engineers jointly administer the CWA Section 404 program.

Common Features of EPA Laws

While each law is somewhat different, several features are common:

- They provide national standards regulating the handling, emission, discharge, and disposal of harmful substances.
- Standards are applied through general EPA or State rules, through permits, or both.
- EPA is given authority to enter and inspect and has other authority for information requests or demands, monitoring, testing, and reporting.
- EPA is generally given authority to issue notices of violation and administrative compliance orders.
- EPA is generally given authority to seek injunctive relief through civil courts and/or to impose it administratively.
- EPA can usually seek administrative penalties and civil or criminal remedies. This authority generally allows the Agency to eliminate, through penalty assessment, any economic advantage gained by a non-complying source as a result of its non-compliance.
- EPA usually has emergency authority to address such situations.
- EPA may give States authority to administer and enforce programs; however, EPA retains independent enforcement authority.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

- Federal facilities are generally required to comply with substantive provisions of EPA statutes, although enforcement raises other issues.

Overhead 3-B
Selected Program Provisions of 40 CFR

- EPA implements these laws through regulations, assembled in Title 40 of the Code of Federal Regulations (CFR) Parts 1-799.

LECTURE/DISCUSSION
(50 min.)

EPA LAWS IN A NUTSHELL

After you summarize each statute, ask the trainees for ideas about what the inspector looks for on an inspection of that program. Because of the limited time, this should be in the style of "rapid-fire brainstorming," a few ideas are listed for each program under the Suggested Content column.

In the remaining portion of this session, I hope to convey to you a general understanding of what each of the major laws EPA administers is about, and give you an idea of some of the ways these laws can be violated.

Each of you does or will do inspections for one or more programs. When we get to a program you know, please help me out by providing examples of things you look for on inspections.

Pesticides -- FIFRA

All pesticides must be registered by EPA.

Many toxicity and environmental fate tests are required. If the product's risks do not outweigh its benefits, it is registered.

If registered, the label states how it must be used -- in essence, the label serves as the "regulation" governing the pesticide's use.

The principal components of the enforcement program are:

- Assuring that manufacturers and producers of pesticides comply with registration, testing, labeling requirements.
- Assuring that pesticide users are using the pesticides in accordance with label directions.

INSTRUCTOR NOTES	SUGGESTED CONTENTS
At this point, ask the group to tell what a pesticide inspector looks for. A few suggestions are included in the Suggested Content column.	Can anyone tell us what an inspector might typically look for on a pesticides inspection?
	• See if the EPA registration number and correct label are on pesticide packages (at manufacturers and in marketplace).
	• Audit laboratory to see if it is using good laboratory practices and following test protocols.
	• Investigate a farmworker complaint that he was sprayed while working in a field.
	• Observe mixing and loading practices of a commercial aerial applicator.
	Toxic Substances (TSCA)
	Under TSCA, EPA can regulate the manufacture, distribution in commerce, and use of toxic substances.
	Makers of new chemicals must notify EPA in advance of manufacture.
	For both new and existing chemicals, EPA can require testing and additional information. Based on risk-benefit analysis, EPA can prohibit or limit the chemical's manufacture and use.
	Chemical control rules are in place for PCBs, asbestos, and CFCs.
Ask the group for ideas of what a TSCA inspector does. Some ideas are included in the Suggested Content column.	Let's open the discussion now. What might a TSCA inspector do?
	• Check for leaks or drips on or around a PCB transformer or capacitor. Make sure they are marked with a PCB label.
	• Visit a school where asbestos abatement is taking place to make sure it is being done properly.

- Check a chemical company's records to make sure it has not begun to manufacture a product that EPA has denied or delayed approving under the PMN program.
- Audit a laboratory conducting toxicity testing under TSCA test rules.

Clean Air Act

The CAA addresses air pollution from stationary sources (factories, utilities) and mobile sources (cars, trucks).

EPA sets national air quality standards for various pollutants. Each State has a plan for meeting these standards, called SIPs. SIPs detail emission limitations and schedules and timetables for stationary sources to come into compliance. They focus on major facilities or major modifications to existing facilities.

Control requirements for individual facilities are generally greater in areas that do not now meet air quality standards, but significant deterioration of air quality in areas meeting the standards is not allowed.

Both performance standards and technology requirements are included in the program.

Regulation of volatile organic chemicals and hazardous air pollutants will greatly expand the size of the regulated universe, but many of the individual sources are very small.

The mobile source program regulates emissions from motor vehicles. EPA tests new classes and models of vehicles to make sure they are designed to meet emissions standards. EPA can also regulate fuel and fuel additives if resulting emissions would contribute to air quality problems.

INSTRUCTOR NOTES

Open the discussion for ideas about air inspections. Use suggestions if needed.

SUGGESTED CONTENT

What does a stationary source inspector do on an inspection?

- "Read" visible emissions from smokestacks to see if they are within acceptable boundaries.
- Check to see that required equipment has been installed.
- Check operation and maintenance of control equipment.

What might a mobile source inspector do?

- Audit vehicles during production to see if they meet emissions standards.
- Investigate tampering (removing catalytic converters) and fuel switching problems.

Clean Water Act (CWA)

EPA establishes national water quality goals under the CWA.

Water pollution from industrial and municipal facilities is controlled primarily through permits limiting discharges.

Permit limits are based on effluent guidelines for specific pollutants, performance requirements for new sources, and/or water quality limits. Permits also set schedules and timetables for construction and installation of needed equipment.

Sources which discharge indirectly to a municipal treatment plant are subject to pretreatment standards.

Other key provisions of the CWA require permits for discharge of dredged and fill materials into waters (including wetlands) and requirements for reporting and cleaning up spills of oil or hazardous material.

Nonpoint sources of water pollution, such as runoff from agricultural fields, are addressed through programs to implement Best Management Practices.

INSTRUCTOR NOTES	SUGGESTED CONTENT
Ask for ideas about water inspections, using suggestions as needed to stimulate the group.	What are some of the things a water inspector might be looking for on an inspection? • Make sure that a source discharging to water has obtained the required permit. • Check self-monitoring reports of discharges against data in the source's files and logs. • Interview operators to find out how equipment is maintained. • Sample effluent to see if it exceeds permit limits.
	Drinking Water (SDWA) EPA sets standards for the quality of water that can be served by public water systems, known as MCLs, or Maximum Contaminant Levels. Public systems must sample their water periodically and report findings to the State (or EPA, if not a primacy State). They must notify consumers if they do not meet the standards or have failed to monitor or report. EPA is on a statutory schedule for promulgating a large number of new MCLs. Underground injection of materials is regulated under another provision of the SDWA which prohibits the movement of fluids from injection wells into an underground source of drinking water. Technical requirements are placed on well operators through regulations and operating permits.
Use suggestions for drinking water program inspections as needed.	What do public water system and UIC inspectors do on compliance inspections? • Verify public water system records of monitoring and reports of exceeding MCLs. • Interview water system personnel to identify potential operations and maintenance problems.

- Observe mechanical integrity testing at UIC wells.
- Check to make sure that only the wastes and quantities specified by permit are being injected into Class I wells.

Hazardous Waste (RCRA)

RCRA provides "cradle to grave" management of hazardous waste, management of solid wastes, and regulation of underground storage tanks containing chemical and petroleum products.

Under Subtitle C, wastes listed as hazardous waste are subject to controls on generation, transportation, storage, and disposal. A manifest system tracks shipment of hazardous waste from the generator until ultimate disposal.

The control program is implemented through regulations and permits for various types of facilities handling hazardous waste.

Treatment, storage, and disposal facilities (TSDF) for hazardous waste are subject to technical requirements for facility design and operation. They are required to take corrective action if releases occur, and must show financial responsibility to handle cleanups if ever needed.

Non-hazardous solid wastes are addressed in Subtitle D. EPA develops guidelines and criteria for managing solid waste and provides financial assistance to State and local governments to develop solid waste plans.

Underground storage tanks are subject to regulation under Subtitle I. Regulations require phasing out of tanks not meeting the technical standards and installation of leak detection systems. Tank owners must take corrective action if leaks occur.

INSTRUCTOR NOTES

Ask for ideas and use suggestions as needed to stimulate discussion.

SUGGESTED CONTENT

What are some of the things an inspector might look for on a hazardous waste inspection at a TSDF?

- Visually inspect facility grounds for evidence of leaks or spills (e.g., stained ground, dead vegetation, discolored waterway).
- Inspect stored drums and containers for condition, leaks, labels.
- Check manifests to see if facility is receiving only wastes it is allowed to receive.
- Review groundwater monitoring data.

What might be done on an underground storage tank inspection?

- Check to see if leak detection system is in place and operating (or pressure test has been performed).
- Check for certification of proper installation of new tanks.

Superfund (CERCLA)

The Superfund law authorizes EPA to clean up hazardous substances at closed and abandoned waste sites and to recover the cost of cleanup and associated damages from the responsible parties. EPA can also take enforcement action against responsible parties to compel them to clean up sites.

Other provisions of CERCLA require releases over a specified amount ("reportable quantities") of hazardous substances to be reported.

Since CERCLA is mostly an after-the-fact cleanup program, there are no compliance monitoring inspections as in other programs. Sites are visited and environmental and other data are gathered for evaluation and assessment purposes, as well as to identify potential responsible parties.

This information may ultimately be used in enforcement actions to recover the costs of cleanup or to compel cleanup by responsible parties.

INSTRUCTOR NOTES | **SUGGESTED CONTENTS**

Ask the group for ideas about what might be signs of an abandoned toxic dump site or other Superfund-type problem.

Inspectors from all EPA programs should be alert to signs of potential abandoned dump sites or other Superfund-type situations while they are out in the field.

- Rusting drums and containers, evidence of spills, discolored vegetation, discolored water, foul-smelling lagoons.
- Statements by facility personnel about how they handle wastes.

Emergency Planning and Community Right-to-Know

Title III of SARA (1986) was enacted to help increase the public's knowledge of and access to information on the presence of hazardous chemicals in their communities and releases of these chemicals into the environment. It also is designed to aid State and local governments in preparing for response to chemical release emergencies.

Under Section 313, facilities which make routine releases of toxic chemicals to the environment must report them for inclusion on an inventory to be published by EPA. This will include releases to air and water, for example, that are allowed via permits issued by EPA and/or the State.

As a new program, there is not likely to be much experience by trainees. The future may include some cross-program compliance activities, however, since Title III has implications for all EPA programs.

EPA inspections associated with Section 313 might include:

- Making sure that all who should report have reported
- Verifying the accuracy of the information submitted
- Cross-checking permit discharges against reported information

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This has been a whirlwind tour of EPA's laws, and of the types of violations inspectors look for. We hope it has given you a sense of the enormity and complexity of EPA's mission and where the program(s) you work for fit in.

Chapter 2 of the manual presents a more detailed discussion.

SUMMARY OF MAJOR EPA STATUTES

Environmental Problem	Statute	Original Enactment
Pesticides	FIFRA	1946
Air Pollution	CAA	1960s
Water Pollution	CWA	1960s
Drinking Water	SDWA	1970s
Toxic Chemicals	TSCA	1970s
Solid and Hazardous Waste	RCRA	1970s
Ocean Dumping	MPRSA	1970s
Abandoned Toxic Dumps	CERCLA	1980s

SELECTED PROGRAM PROVISIONS OF 40 CFR

Part	Topic
1	General information on and organization of EPA.
2	Freedom of Information Act Requests; Confidential Business Information; Testimony by Employees and Production of Documents in Civil Legal Proceedings Where the United States is not a Party.
3	Employee Ethical Standards.
22	Rules of Practice of Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits.
30	General Regulations for Assistance Programs.
32	Debarment and Suspension Under EPA Assistance Programs.

SELECTED PROGRAM PROVISIONS OF 40 CFR (CONTINUED)

Part	Topic
33	Procurement Under Assistance Programs.
50-87	Air Programs (Including Mobile Sources).
100-140	NPDES Program.
141-147	Drinking Water Program.
152-180	Pesticides Program.
220-233	Ocean Dumping.
240-272	Solid and Hazardous Wastes.
280	Underground Storage Tanks.
300-355	Superfund.
400-471	Effluent Guidelines and Standards for CWA.
702-799	Toxic Substances.

SESSION 4
TOPIC: OVERVIEW OF ENFORCEMENT
INSTRUCTOR'S OVERVIEW

Time: 75 minutes

Purpose

Provide the context for work of inspectors

Explain the role of inspectors in each aspect of an enforcement case

Provide an overview of civil litigation

Introduce inspectors to criminal enforcement and how to recognize potential criminal violations

Key Points

Knowledge of program compliance and enforcement strategies aids inspectors in making appropriate field decisions.

Inspectors are involved in every aspect of an enforcement case.

Inspectors should recognize and refer potential criminal violations for investigation.

Advance Preparation

Text reference Chapters 3 and 6.

Bring an example of a compliance monitoring strategy and an enforcement response policy (or other documents from an enforcement/compliance policy compendium).

Optional: Bring a chronology of an actual administrative enforcement case to use in explaining the stages of litigation.

Optional: Prepare to describe an EPA criminal case that was successfully prosecuted in your Region.

Equipment

Overhead projector

List of Visuals

4-A -- Topic Summary
4-B -- Compliance and Enforcement Program Includes
4-C -- Laws and Regulations
4-D -- Compliance and Enforcement Strategies
4-E -- Compliance Monitoring
4-F -- Enforcement Response
4-G -- Follow-Up to Enforcement Response
4-H -- Steps in an Enforcement Action
4-I -- What Can We Get from an Enforcement Action?
4-J -- Types of Legal Cases
4-K -- Principal Elements of Civil Litigation
4-L -- Stages of Civil Litigation
4-M -- Summary of EPA Criminal Enforcement
4-N -- Principal Differences Between Civil and Criminal Enforcement
4-O -- "Red Flags" Indicating Possible Criminal Activity

Suggested Teaching Outline

Lecture:	Overview of a Compliance Program	15 minutes
Discussion:	Relevance of National Strategies	5 minutes
Lecture:	Role of an Inspector in Enforcement Actions	15 minutes
Discussion:	Participation of Inspectors in Enforcement Cases	5 minutes
Lecture:	Civil Litigation	10 minutes
Lecture:	Criminal Enforcement in EPA	10 minutes
Discussion:	Recognizing Potentially Criminal Violations	15 minutes

INSTRUCTOR NOTES	SUGGESTED CONTENT
Introduction	Introduce yourself, including background, EPA experience, your role in the course.
LECTURE (15 min.)	**OVERVIEW OF A COMPLIANCE PROGRAM**
This session intended to give inspectors a sense of their role within the context of the entire compliance and enforcement process. As you go through the various points, be sure to emphasize the ways in which inspectors are involved.	In an earlier session, we covered the role of the inspector broadly. In this session, we are going to focus more closely on enforcement actions, and the ways that inspectors are involved. First, we will explain what goes into making up a compliance and enforcement program. This will give you a context for how we decide when and where to conduct an inspection and the options the Agency has for responding to violations.
Overhead 4-A **Summary of Topics**	Then, we will discuss the civil litigation process, which forms the bulk of our cases. Finally, we will discuss criminal enforcement at EPA.
Overhead 4-B **Compliance and Enforcement Program Includes:**	Compliance and enforcement is more than simply the random discovery of a violation and then taking an enforcement action to make the violator comply and/or pay a penalty. A compliance and enforcement program includes:
Overhead 4-C **Laws and Regulations**	• Laws and regulations: Well written laws and regulations (and permit conditions) make it easy to determine who is subject to them, and what is or is not a violation.
Overhead 4-D **Compliance and Enforcement Strategies**	• Compliance and enforcement strategies: Usually comprised of a series of documents such as compliance monitoring plans and enforcement response policies, the strategy sets out the Agency's plans for deploying its resources to achieve compliance. These strategies assure that we have a national program. Strategies usually direct the most intensive efforts to those segments of the regulated community most likely to be in non-compliance and/or whose compliance is most important (e.g., high risk because of potential exposures).

INSTRUCTOR NOTES	SUGGESTED CONTENT
Overhead 4-E **Compliance Monitoring**	• Compliance monitoring: This includes all means used to determine the compliance status of a facility or site, including in-office screening of data and on-site inspections.
Overhead 4-F **Enforcement Response**	• Enforcement response: EPA policy is to respond in a timely and appropriate manner to violations. There is a range of possible responses within different time-frames, representing differing levels of seriousness and effort. These include: - Informal administrative response, such as a notice of non-compliance. - Formal administrative response, such as an administrative order assessing a penalty. - Civil judicial response, such as a lawsuit seeking a penalty and court order to compel compliance. - Criminal judicial response, such as criminal prosecution against a knowing and willful violator.
Overhead 4-G **Follow-up to Enforcement Response**	• Follow-up to enforcement action: Follow-up is needed after an enforcement action is taken to ensure that the violating facility meets applicable requirements and comes into compliance. EPA will ordinarily step up the level of enforcement action when a facility fails to comply with an earlier action.

INSTRUCTOR NOTES **SUGGESTED CONTENT**

DISCUSSION (5 min.)

RELEVANCE OF NATIONAL STRATEGIES TO INDIVIDUAL INSPECTORS

Suggested question to discuss with the group are shown in the next column.

A point to be raised in the discussion is that knowledge of program enforcement response strategies and policies can help the inspector make decisions in the field, e.g., deciding which violations to document most vigorously when choices must be made.

- Why should inspectors be familiar with the programs' compliance and enforcement strategy?
- How do compliance monitoring strategies relate to inspections (frequency and substance)?
- How can an inspector's knowledge of the program's enforcement response and penalty policies be used in the field?

LECTURE (15 min.)

ROLE OF AN INSPECTOR IN ENFORCEMENT ACTIONS

An inspector should be aware that any inspection can lead to an enforcement action. The attorney-client relationship between the inspector and the case development staff/enforcement attorneys begins as soon as a facility is selected for inspection. Inspectors are involved at virtually every stage of an enforcement case. Following are the basic steps in an enforcement action, with the potential role of the inspector highlighted:

Overhead 4-H
Steps in an Enforcement Action

- The inspection: The inspector identifies and documents the facts surrounding potential violations, writes the inspection report, and prepares a file with all pertinent documents. (The inspector makes no independent decision that a facility or site is in violation.)

INSTRUCTOR NOTES **SUGGESTED CONTENT**

- Enforcement response decision: The inspector may make formal recommendations to enforcement personnel regarding enforcement response; at a minimum, an inspector is likely to be consulted. The quality of the inspector's work in conducting an inspection and documenting violations may affect decisions on the level of action.
- Enforcement document drafting: The inspector may be responsible for drafting all or a portion of a notice of non-compliance or a formal complaint or compliance order.
- Settlement negotiations: The inspector may serve as a member of the team negotiating with the violator to develop a settlement agreement; at a minimum, the inspector is likely to be consulted.
- Hearing or trial: If the case is litigated, the inspector is likely to be involved in developing the case, may find his or her notes and other documents subject to discovery, and ultimately may be called upon to serve as a government witness.

DISCUSSION (5 min.)

PARTICIPATION OF INSPECTORS IN ENFORCEMENT CASES

Suggested questions to stimulate discussion are shown in the next column.

- Are there obstacles to closer and more frequent coordination between inspectors and enforcement attorneys?
- How would enforcement efforts be improved if these obstacles were removed?

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
LECTURE (10 min.)	**CIVIL LITIGATION**
	EPA has authority to pursue both administrative and judicial civil litigation. We will discuss criminal cases later in this session. • Under most of EPA's statutes, through civil litigation, EPA can require a violator to (1) take steps to stop violations, to correct the violation, and to remedy any damages, and/or (2) pay a civil penalty. It is EPA's policy that the penalty amount we seek should remove any economic benefit that the violator accrued as a result of the violating condition, as well as an amount based on the gravity of the violation.
Overhead 4-I **What Can We Get From an Enforcement Action?**	• The principal difference between administrative and judicial litigation is the setting in which they occur. Administrative cases are heard by EPA's administrative law judges, while civil cases are tried in the United States court system. DOJ represents EPA in judicial actions, but EPA is heavily involved.
Overhead 4-J **Types of Legal Cases**	• The bulk of EPA's enforcement cases are administrative; such actions are generally less resource-intensive for the Agency and result in swifter action. Judicial litigation is generally used for more serious violations, such as when other enforcement actions have stalled or have failed to bring a violator into compliance.
Overhead 4-K **Principal Elements of Civil Litigation**	Following are the principal elements of civil litigation: • Theory of the case: Consists of three ingredients: (1) facts of violation, (2) the law or legal duty, and (3) some breach of duty resulting in harm to a person or thing. Ideally, the theory of the case can be stated in 25 words or less.

- Burden of proof: Essentially, which side has to persuade or prove something. Which side has the burden depends on the issue.

- Standards of proof: How well each side must meet its burden on any given issue. In order of increasing difficulty, the four basic standards of proof are: (1) credible evidence; (2) preponderance of evidence; (3) clear, cogent, and convincing evidence; and (4) evidence beyond a reasonable doubt.

Use an actual case to illustrate these stages

Overhead 4-L
Stages of Civil Litigation

Following are the stages of civil litigation:

- Conception and preparation: Begins when the inspection begins; legal and factual investigation and research merge and the theory of the case begins to form.

- Pleadings: "Letters to the judge," are the first legal documents and include such items as the parties involved, and the allegations and claims. In a civil case, the government's first pleading is the "complaint." Inspectors are sometimes involved in drafting the complaint.

- Discovery: During this phase, both sides work to gain more facts and try to glean the theory of the case of the other side. The information is obtained through: (1) interrogatories, written questions to which written answers must be provided; (2) requests for production of documents and samples; and (3) depositions, live testimony taken under oath. Notes and other documents prepared by inspectors are generally subject to discovery; inspectors also often give depositions.

- Motion practice: Motions are attempts by both sides to narrow the case to the real issue(s), used also to get leverage to try to force settlement. Motions range from attempts to exclude certain factual evidence to deciding whole issues of law or fact.

  The inspector plays an important role during motion practice and may be faced with multiple affidavits.

- Trial: The time when the two sides present the facts (as they see them) to the trier-of-fact.

  Most litigation work is done before trial, and most cases are settled before trial is reached. The inspector's work is what makes bringing the other side to settlement possible.

- Post-trial and appeal: All sides have post-trial and appeal rights. The facts have been decided; only matters of law are at issue.

LECTURE (10 min.)

CRIMINAL ENFORCEMENT IN EPA

Overview of Criminal Enforcement

Criminal investigations are always led by EPA's criminal investigative staff. Part of the National Enforcement Investigations Center (NEIC) in Denver, there are special agents in each Regional office and Headquarters.

Overhead 4-M
Summary of EPA Criminal Enforcement

Regular EPA inspectors (and other staff such as scientists) who are involved in criminal investigations are given special training at the Federal Law Enforcement Training Center (FLETC) in Glynco, Ga.

The Office of Criminal Enforcement in Headquarters works with the criminal investigators and the Department of Justice in actual prosecution of criminal cases.

Because of the special legal issues associated with criminal investigations and the rights of the accused, inspectors who become involved in criminal investigations should always follow the direction of the Special-Agent-in-Charge (SAIC) and/or Resident-Agent-in-Charge (RAIC).

INSTRUCTOR NOTES	SUGGESTED CONTENT

Overhead 4-N
Principal Differences Between Civil and Criminal Enforcement

The principal differences between civil and criminal enforcement are that in criminal cases:

- Searches of property can only occur with consent or with a warrant obtained based on sworn testimony that there is "probable cause" to believe a crime has been committed.
- Other constitutional guarantees for the defendant.
- Government-held information is not subject to discovery by the other side, except for information that would tend to show the innocence of the accused.
- The burden of proof is higher than for civil cases: "beyond a reasonable doubt."
- The penalties are more severe: imprisonment and/or a fine. (Some statutes allow felony sanctions - corporations and individual officers are potential defendants.)

How EPA Conducts a Criminal Investigation

All "initial leads" of potentially criminal activity are referred to the SAIC or RAIC.

Depending on the reliability of the lead, a preliminary inquiry or assessment may be made to determine whether a complete investigation is warranted.

The SAIC or RAIC notifies the Office of Regional Counsel and brings in needed technical staff from the program office(s).

The Special Agent manages the investigations. He/she:

- Determines the basic investigative approach
- Leads the conduct of interviews, assembling and review of records
- Plans and executes surveillances

- Coordinates with the U.S. Attorney's office and other Federal, State, and local law enforcement agencies

- Contacts other witnesses

- Completes all required reports

Inspectors assigned to assist in an investigation work under the direction of the Special Agent.

Agency policy is to neither confirm nor deny the existence of a criminal investigation. Any requests for information must be referred to the Special Agent.

The Agency must comply with the Jencks Act. This law is designed to allow the defendant to have all relevant information of a governmental witness so that they can attempt to impeach.

- If the defendant's ability to cross-examine is hindered because the government lost information -- whether on purpose or inadvertently -- the Court may decide to not allow the witness to testify at all or to strike the witness' entire testimony.

- Agency policy is to turn over all relevant notes, records, and reports to the defense if requested through the Court -- after direct examination.

- For inspectors, the principal effect of the Jencks Act is: keep accurate and complete notes, records, and reports; they should be factual, containing no opinions or biases. Finally, throw nothing away -- not even scraps of paper.

All material associated with a criminal investigation must be kept according to security procedures.

INSTRUCTOR NOTES	SUGGESTED CONTENT
DISCUSSION (15 min.)	**RECOGNIZING POTENTIALLY CRIMINAL VIOLATIONS**
	Inspectors are not expected to be able to determine whether there has been criminal behavior at a facility. They should, however, be able to recognize the types of activities that warrant referral to the criminal investigation staff. Generally, criminal behavior falls into one of these categories: • Knowing or willful violation of the law (all statutes) • Negligent actions (CWA) • Fraudulent reporting (all statutes).
Ask the group for ways to recognize violations. Points to cover if not raised by the group are shown in the other column and on the overhead.	Evidence of criminal wrongdoing is usually subtle. If inspectors observe anything suggesting criminal behavior, consult with the criminal investigation unit.
Overhead 4-O **"Red Flags" Indicating Possible Criminal Activity**	Some red flags suggesting the potential for criminal action follow. If one or more is found, consult with the criminal investigation unit. • Conflicting data: two sets of books, inconsistent monitoring reports on the same incident. • Conflicting stories: when an inspector is led to believe one thing and sees something different in records or through observations. • Unsubstantiated data: monitoring or other recordkeeping and reporting which lacks any substantiating information. • Deliberate actions: when an employee says he was told to do something the inspector knows is illegal.

INSTRUCTOR NOTES	SUGGESTED CONTENT
	• Claims of ignorance about requirements; copies displaying knowledge are discovered in the records, or other statements during interviews show knowledge.
Some suggested questions to stimulate discussion are shown in next column.	• What other types of indicators are there that there may be a criminal violation? How far should the EPA inspector investigate before referring the situation to the criminal investigation staff?
	• Have any of you been involved in a criminal investigation? How was it different from routine inspection work? What did you find most difficult? Was there sufficient coordination between offices?

SESSION 4: OVERVIEW OF ENFORCEMENT

- Components of a Compliance Program
- Role of Inspector in Enforcement Actions
- Civil Litigation
- Criminal Enforcement in EPA

Text: Chapters 3, 6

COMPLIANCE AND ENFORCEMENT PROGRAM INCLUDES:

- Laws and regulations
- Compliance and enforcement strategies
- Compliance monitoring
- Enforcement response
- Follow-up to enforcement actions

LAWS AND REGULATIONS

- Should be written clearly so easy to discern:
  - Who is subject to them
  - What is and is not a violation

COMPLIANCE AND ENFORCEMENT STRATEGIES

- Compliance monitoring plans
- Enforcement response policies
- Other policy and guidance documents

COMPLIANCE MONITORING

- Source self-monitoring and reports
- Inspections

ENFORCEMENT RESPONSE

- Graduates with severity of violation:
  - Informal administrative response
  - Formal administrative response
  - Civil judicial response
  - Criminal judicial response

FOLLOW-UP TO ENFORCEMENT RESPONSE

- Reports/certifications of compliance by source
- Follow-up inspections
- More severe enforcement reponse if still in violation

STEPS IN AN ENFORCEMENT ACTION

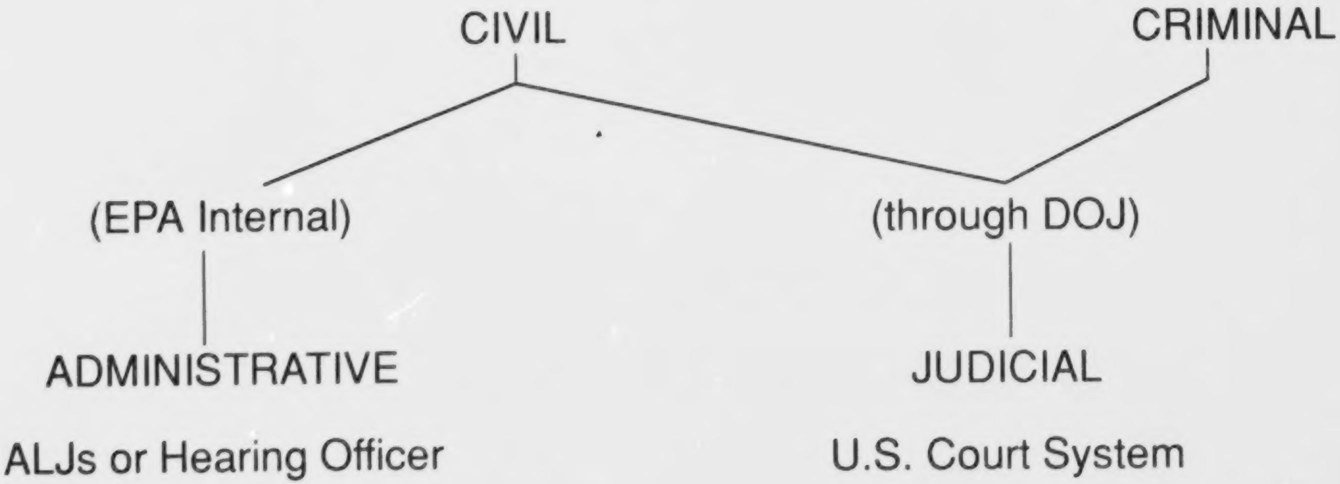
1. Violation found and documented
2. Decision on level/type of enforcement response
3. Enforcement documents drafted and filed
4. Settlement negotiations
5. Hearing or trial

WHAT CAN WE GET FROM AN ENFORCEMENT ACTION?

- Depending on law, violation, and circumstances:

Civil	Criminal
- Compliance with requirement	- Monetary fine
- Monetary penalty	- Prison sentence
- Cleanup of contamination	

TYPES OF LEGAL CASES



CIVIL

CRIMINAL

(EPA Internal)

ADMINISTRATIVE

ALJs or Hearing Officer

(through DOJ)

JUDICIAL

U.S. Court System

PRINCIPAL ELEMENTS OF CIVIL LITIGATION

- Theory of the case
- Burden of proof
- Standards of proof

STAGES OF CIVIL LITIGATION

- Conception and preparation
- Pleadings
- Discovery
- Motion practice
- Trial
- Post-trial and appeal

SUMMARY OF EPA CRIMINAL ENFORCEMENT
1983-1988*

Total Indictments:	456	Individuals	334
		Corporations	122
Pleas/Convictions:	322	Individuals	228
		Corporations	94

Fines Imposed:	$12,896,113
Jail Terms:	Over 209 years
Actual Time Served:	Nearly 64 years

***Source: U.S. Department of Justice, 9/88**

PRINCIPAL DIFFERENCES BETWEEN CIVIL AND CRIMINAL ENFORCEMENT

- Warrants based on “probable cause”
- Other Constitutional guarantees
- Burden of proof: “beyond a reasonable doubt”
- Penalties more severe: imprisonment and/or fine

"RED FLAGS" INDICATING POSSIBLE CRIMINAL ACTIVITY

- Conflicting data
- Conflicting stories
- Unsubstantiated data
- Deliberate action
- Claims of ignorance about requirements

SESSION 5
TOPIC: ENTRY
INSTRUCTOR'S OVERVIEW

Time: 75 minutes

Purpose

Explain the extent and limits of EPA's authority to enter and inspect facilities

Explain EPA policy and practice regarding consensual entry

Explain procedures for proper, lawful entry

Provide guidance on how to handle sensitive entry-related situations

Discuss the role of the inspector in securing and inspecting with a warrant

Note: The role play is crucial in this session to illustrate the key points that have been made.

Key Points

EPA policy is to obtain a warrant when owner consent to enter has been denied.

Advance Preparation

Text reference Chapter 7.

Review Handouts 5-2 and 5-3 and prepare for role play. Ask two or three experienced inspectors to play the roles. Give them the handouts in advance to allow preparation time. If possible, have others play roles so you can observe carefully.

Locate an inspection file for which a warrant was obtained. Make transparencies of the warrant documents or sufficient copies for handouts.

Equipment

Overhead projector

List of Visuals

5-A -- Topic Summary
5-B -- Bases for Entry

Handouts

5-1 Summary of Federal Environmental Acts Regarding Right of Entry
5-2 Entry Scenario (inspector)
5-3 Entry Scenario (plant official)

Suggested Teaching Outline

Lecture: EPA's Entry Authority, Policy, and Practice	20 minutes
Role Play: Consensual Entry	20 minutes
Question and Answer Session: Entry	20 minutes
Lecture: Warrants	10 minutes
Lecture: Other Information-Gathering Tools	5 minutes

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

Introduction

Overhead 5-A
Summary of Topics

Introduce yourself, including background, EPA experience, your role in the course. In this session, we will cover the legal basis of EPA's inspection authority, have a role play exercise on consensual entry, and discuss warrants and other tools for gathering information.

LECTURE (20 min.)

EPA'S ENTRY AUTHORITY, POLICY, AND PRACTICE

Distribute Handout 5-1
Summary of Federal
Environmental Acts
Regarding Right of Entry

Legal Bases for Entry

EPA, through provisions of the various statutes the Agency administers, has the legal authority to enter and inspect private facilities.

There are variations in the inspection provisions among the EPA statutes such as who may enter, at what time they may enter, the scope of inspection activities, and required presentation of a notice of inspection.

Provisions of the Constitution reinforce the Agency's authority to enter provided by Congress in the individual environmental statutes.

- Article III empowers the courts to issue orders confirming entry powers granted by the legislature. This is the source of power for the courts to issue warrants.

- The 4th Amendment does not prohibit searches, it only prohibits unreasonable searches.

Over the years, there have been many court cases regarding authorized entry and the protection of individual Constitutional rights.

A case that has most directly affected EPA's policy and practice with regard to entry is Marshall v. Barlow's (1978).

- In this case, an OSHA inspector was not given consent to enter a workplace. The company challenged the Constitutionality of the law giving OSHA the authority to enter.

- The Supreme Court ruled that OSHA's entry authority is Constitutional, but held that an OSHA inspector is *not entitled to enter the non-public portions of a worksite without either the owner's consent or a warrant.*

- The court established two bases for issuing a civil administrative warrant: (1) *reasonable cause* to believe that a violation had occurred or was occurring at the facility, or (2) the facility was selected for inspection based on a *pre-existing administrative plan or scheme for entries*. The scheme itself need not be neutral or random, but the basis for the plan must be neutral.

Essentially, the Court's message was that the government (through its field agents or otherwise) cannot "pick on" people with subtle harassing techniques or through exercise of entry, search, inspection, investigation, information gathering, or correctional rights or powers.

EPA's entry authorities under the various statutes are somewhat different from OSHA's and have not been successfully challenged on Constitutional grounds. Consequently, it is uncertain whether EPA is required to follow the rules announced in the Barlow's case. Rather than risk having to litigate the issue under each EPA law, EPA practice and policy is to conduct its affairs as if Barlow's applies.

- *EPA policy is to obtain a warrant when owner consent to enter has been denied.*

When consent is lacking, EPA obtains a warrant to "validate," "confirm," or "credentialize" its statutory right to enter.

The Agency's "right to a warrant" was upheld in Bunker Hill Co. v. EPA (9th Cir., 1981). The Court held that EPA's statutorily expressed right of entry was sufficient basis for EPA using, and a magistrate issuing, an administrative warrant.

Despite the Barlow's decision, there are some areas where a *right of warrantless entry* still exists:

- Emergency situations, such as potential imminent hazard situations or where there is potential destruction or disappearance of evidence.

  As a practical matter, if entry is refused during an emergency, the Agency would need the assistance of a U.S. Marshal to gain entry. During this time, a warrant could probably be obtained and would be prudent.

- Pervasively regulated industries that have been subject to a longstanding and pervasive history of government regulation.

- "Open fields" and "in plain view" situations where the inspector can observe things in plain view of anyone in a lawful position or place to see them, such as inspector observations from a public area of a facility.

Overhead 5-B
Bases for Entry

Proper Entry Procedures

Inspectors should follow proper procedures when entering a facility so that no questions or challenges can be raised regarding the legality of the inspection.

- Arrive at the facility or site during normal working hours (this meets statutory language regarding entry at a "reasonable time"). Note arrival time in the field logbook.

- Enter the facility or site through the main gate unless the facility has specified another location.

- Locate the owner or agent-in-charge as soon as you arrive. Ask who is in charge; do not rely on individuals' titles.

- Government credentials must be presented whether or not identification is requested. Even when presentation of credentials is not required by statute, EPA policy is to present them to authenticate that the inspector is a Federal official with authority to conduct inspections.

- -- A note in the field logbook that credentials were presented and to whom may prove useful later.
- -- Keep your credentials in sight at all times. Do not allow facility staff to take them from your presence. Business cards can serve as an introduction.
- -- Present a written *Notice of Inspection* as required by law if inspecting under FIFRA, SDWA, or TSCA authority.
  - The Notice should be dated and the time of inspection entered as proof that entry was requested at a reasonable hour.
  - Make a note in the field logbook about presentation of the Notice and keep a copy as part of the inspection file.
  - At certain Federal facilities, a security clearance may be required before entry is allowed.

Consensual Entry

EPA policy is to obtain access to a facility or site by consent.

What does consent mean? Consent is the intentional foregoing of right to privacy that has not resulted from fear, ignorance, or trickery.

Express consent is not necessary; absence of express denial constitutes consent.

What to do if entry is denied:

- Be sure that entry and arrival were conducted according to proper procedures.
- Tactfully discuss the reason for denial; try to obtain consent by reason and logic.
- Carefully record observations in your field logbook.

INSTRUCTOR NOTES **SUGGESTED CONTENT**

- Avoid threatening or inflammatory statements. Never say that you will "get" a warrant. You may say that you will "seek" a warrant.
- Leave the premises and contact your supervisor.
- Follow directions of your supervisor and/or the Regional Counsel regarding next steps.

We will be discussing how to obtain and inspect with a warrant later in this session.

ROLE PLAY (20 min.) CONSENSUAL ENTRY

Introduce the scenario to the entire group.

Conduct the role-play. End the role-play when the action begins to fail or becomes far-fetched.

The inspector, Mr./Ms. A. Greer, is inspecting a small business that has only recently become subject to EPA authority because of new regulations. This is the first inspection this facility has had. When he/she arrives, the secretary greets him/her.

Open discussion on the exercise. During the discussion, be sure to ask for positive as well as negative feedback.

Questions that can be used to stimulate a critique and discussion of what happened (or didn't happen) during the role play:

- Would it have been acceptable to conduct the inspection if the plant owner had not arrived? How do you know if an on-site person has the authority to give consent?
- Was the inspector adequately prepared to deal with the plant owner's concerns?
- What techniques used by the inspector seemed to be most effective in convincing the plant owner to give consent?
- What other techniques might the inspector have used?

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

- Did the inspector step over any boundaries regarding gaining consent (e.g., use any threatening language)?
- Should the inspector have left the premises?
- Did the inspector make any agreements about the scope or content of the inspection that were inappropriate?

QUESTION AND ANSWER SESSION (20 min.)

ENTRY

Invite trainees to ask any questions they have concerning entry.

This question and answer period is intended to provide an opportunity for inspectors to get advice from the instructor(s) and each other on how to handle a variety of entry situations.

Answers to frequently-asked questions include:

- Any effort on the part of facility officials to restrict the inspector's activities is considered a denial of consent and should be handled as such. This includes:
    - Demanding that inspectors sign confidentiality agreements
    - Limiting picture-taking or copying of documents
    - Prohibiting use of tape recorders or other recording devices
    - Requiring the inspector to sign passes, logs with restrictive language, waivers, indemnity agreements, releases.
- The inspector can begin the inspection even if consent to take photographs has been denied. Frequently, this can be discussed during the inspection with the individual in charge and consent can then be obtained.
- If entry is made with consent, but during the inspection facility personnel attempt to place restrictions, it should be considered as revocation of consent and handled accordingly. Keep all samples taken prior to revocation.

INSTRUCTOR NOTES **SUGGESTED CONTENT**

- It is acceptable for the inspector to agree to reasonable requests such as the wearing of an identification badge or hard hat.

- EPA inspectors are encouraged to use the same safety gear that is actually used by facility employees. However, EPA employees are not required to go through the facility's safety training program. Any requirement that they do so should be considered a denial of consent. You may submit to a short briefing on safety equipment and procedures at the facility.

- Inspectors should never use threatening language or behave in any manner that might suggest coercion.

- Inspectors should not state that the Agency will get a warrant, nor suggest that there are any penalties for failing to allow entry.

LECTURE (10 min.) **Warrants**

A warrant is a judicial authorization for an appropriate official (e.g., EPA inspector) to enter a specifically described location and perform specifically described inspection functions.

EPA can obtain an administrative warrant:

- In advance of an inspection,

- When facility officials have denied entry, or

- If consent is withdrawn during an inspection.

The decision to seek a warrant is made by the Regional Program Office, in consultation with Regional enforcement attorneys and Headquarters.

Inspectors and attorneys must work together as a team in drafting warrant documents.

The inspector plays several important roles in the process of obtaining a warrant. His or her knowledge and experience regarding the circumstances are crucial to the drafting of warrant documents. The inspector is responsible for:

- Obtaining the information that will permit very specific descriptions of the premises to be inspected.

- Providing specificity regarding the items to be searched and/or seized.

- Helping to determine what laws/regulations/requirements apply or may have been violated.

- Providing the information amounting to "reasonable" cause or, alternatively, supplying the pre-determined inspection schedule.

To obtain a warrant in the field, inspectors can call the Office of Regional Counsel or go to the closest U.S. attorney's office.

Once a warrant has been issued, the inspector may proceed to the facility to begin or continue the inspection. The warrant should be executed promptly and within the stated number of days.

If there is a probability that entry will still be refused or there may be threats of violence, the inspector should follow the direction of the Marshal. Local Marshals can be contacted at the courthouse, through the U.S. attorney, or referral by a police officer.

The inspection must be conducted in strict accordance with the warrant.

- Follow all procedures carefully, including presentation of receipts for samples. Carefully observe any statutory language with respect to split samples, chain of custody, etc.

- Provide receipts for all samples and documents that are removed from the premises.

Copies of model warrant documents have been included in the manual.

INSTRUCTOR NOTES	SUGGESTED CONTENT
LECTURE (5 min.)	OTHER INFORMATION-GATHERING TOOLS

In addition to inspection authorities, the Agency has other investigative tools that can be used to gain compliance information.

They include administrative investigative subpoenas (AIS), warrants, orders, and requests.

- An AIS can be used to compel the production of tangible information (e.g., records or documents) or the appearance of a person for the purpose of obtaining oral information.
- Warrants can be used to obtain tangible objects, records, and documents, and are most useful when there is concern that records might be destroyed.
- Information-gathering orders under some EPA statutes can be used to require the production of information, including requiring that monitoring and sampling be undertaken and reported.
- A request authorized by statute is comparable to an AIS.

Handout 5-1

SUMMARY OF FEDERAL ENVIRONMENTAL ACTS REGARDING RIGHT OF ENTRY, INSPECTIONS, SAMPLING, TESTING, ETC.

Act Section	Designated Representative	Presentation Credentials	Notice of Inspection	Sampling Permitted	Inspection of Records	Sample Splits	Receipt for Agency's Samples	Return of Analytical Results
Clean Water Act/308(a)	Yes, authorized by Administrator	Required	Not required	Yes (effluents which the owner is required to sample)	Yes	Not required	Not required	Not required
FIFRA/8(b) (Books & Records)	Yes, designated by Administrator	Required	Written notice required with reason and suspected violation note	No	Yes	N/A	N/A	N/A
9(a) (Inspections of establishments)	Yes, designated by Administrator	Required	Written notice required with reasons for inspection	Yes	See 8	Required, if requested	Required	Required, promptly
Clean Air Act/114(a)	Yes, authorized by Administrator	Required	Not required except notify State for SIP sources	Yes	Yes	Not required	Not required	Not required
RCRA/3007(a) 9005(a)	Yes, designated by Administrator	Not required	Not required	Yes	Yes	Required, if requested	Required	Required promptly
SDWA/1445(b)	Yes, designated by Administrator	Required	Written notice required, must also notify State with reasons for entry if State has primary enforcement responsibility	Yes	Yes	Not required	Not required	Not required
TSCA/11(a,b)	Yes, designated by Administrator	Required	Written notice required	(The Act does not mention samples or sampling in this section. It does state an inspection shall extend to all things within the premise of conveyance.)	Yes	N/A	N/A	N/A
CERCLA/104	Yes, designated by President	Not required	Not required	Yes	Yes	Required, if requested	Required	Required promptly

HANDOUT 5-2

ENTRY SCENARIO

Instructions for inspector:

Before you go out to do the inspection, you learn that you will be inspecting a small business that has only recently become subject to EPA authority because of new regulations.

Your role play should last approximately 10 minutes. The instructor will be the timekeeper.

HANDOUT 5-3

ENTRY SCENARIO

(Secretary and Plant Owner can be played by the same or different people.)

Instructions for secretary:

The facility is a small business that has never before been inspected by EPA.

As secretary, you are wary of the inspector. The owner is out of the office and can't be reached by telephone, but the plant foreman is in the building. You attempt to take the inspector's credentials to give to the plant foreman. Before you return, the plant owner arrives.

Instructions for plant owner:

As plant owner, you are unsure whether the inspector has the right to enter, and you are generally resentful of Government regulation. You have the perception that no one from the Government can enter private property without a warrant. You are aware that you are subject to some new EPA requirements, but have had difficulty understanding them and aren't quite sure whether you are in compliance. You fear that if EPA finds out you are in violation, you could be put out of business. During the scenario, you should:

- At first refuse somewhat strongly to let the inspector into the plant.
- Call your lawyer. Ask the inspector to talk to him/her. (You then take on the role of the lawyer too.)
- Say you need more information about the new regulations.
- Ask if there are any penalties for refusing to let the inspector in.
- Ask about penalties for violating the law.

If the inspector does a credible job of convincing you, you reluctantly give consent. However, you try to place conditions on where and what the inspector can look at; you also tell the inspector that you don't want him/her taking any photographs because there are some trade secrets in your plant.

Your role play should last approximately 10 minutes. The instructor will be the timekeeper.

SESSION 5: ENTRY

- Legal Bases for Entry
- Consensual Entry
- Warrants
- Other Information-Gathering Tools

Text: Chapter 7

BASES FOR ENTRY

- Consent
- Warrant
- Emergency
- "In plain view"

SESSION 6
TOPIC: EVIDENCE
INSTRUCTOR'S OVERVIEW

Time: 75 minutes

Purpose

Introduce the rules of evidence and their relevance to inspectors' activities

Provide guidance on documenting evidence to help assure its admissibility in a court proceeding

Key Points

Many of the procedures being taught in this course are based on evidence considerations; they are designed to assure the admissibility of information collected during an inspection and to enable the inspector to provide credible testimony in a court proceeding.

Advance Preparation

Text reference Chapter 8.

From your experience, develop examples of problems and/or successes in getting evidence admitted that you can use to illustrate evidence concepts.

List of Visuals

6-A -- Topic Summary
6-B -- FRE 901: Authentication and Identification
6-C -- FRE 401: Definition of "Relevant Evidence"
6-D -- FRE 602: Lack of Personal Knowledge
6-E -- Who cares if what you are holding is contaminated gunk?
6-F -- Collection Conditions and Surroundings
6-G -- General Identity or Sameness
6-H -- Precautions to Assure Identity
6-I -- Present Conditions Which Vary
6-J -- Representativeness of Item
6-K -- Connecting Up -- The Chain of Custody
6-L -- FRE 612: Writing Used to Refresh Memory
6-M -- FRE 803 (5): Recorded Recollection
6-N -- FRE 803 (6): Records of Regularly Conducted Activity
6-O -- Evidence is in custody if . . .
6-P -- Basic Chain of Custody Procedures
6-Q -- FRE 406: Habit; Routine Practice

Suggested Teaching Outline

Lecture: Introduction to Evidence	20 minutes
Discussion: Illustration of Evidence Concepts	15 minutes
Lecture: Documenting Evidence	30 minutes
Discussion: Evidence Issues	10 minutes

INSTRUCTOR NOTES	SUGGESTED CONENT
Introduction	Introduce yourself, including your background and EPA experience.
Overhead 6-A **Topic Summary**	In this session, we will discuss evidence - what it is, what is necessary for it to be admissible, and how it should be documented.
LECTURE (20 min.)	**INTRODUCTION TO EVIDENCE**

Collecting and documenting evidence is a core inspection activity used to support case development and help an inspector prepare for testimony.

Understanding rules of admissibility of evidence and kinds of testimony an inspector might need to provide helps explain the need to adhere to proper procedures for collecting and handling evidence as a routine matter.

What is Evidence?

Evidence is what we use to prove our case. It is any information or proof that helps establish the truth of a fact or point.

Not all evidence is admissible -- but it still may be useful to EPA. Remember, most cases are settled before a trial and all of your evidence may be helpful during negotiations.

Types of Evidence

- Testimonial -- inspector's testimony to what he or she saw, smelled, heard, felt
- Real -- objects, such as contaminated dirt
- Documentary -- reports, logs, accounting ledgers, computer printouts
- Demonstrative -- something prepared to illustrate or clarify a point, such as photographs, maps, schematics
- Judicially noticed -- scientifically accepted testing devices, geographic location

Federal Rules of Evidence

Used in Federal, civil, and criminal judicial proceedings, Federal Rules of Evidence are "QA/QC procedures for truth."

Principal tests for admission of evidence:

Overhead 6-B
FRE 901: Authentication and Identification

- Authenticity or identification -- evidence must be demonstrated to be what it is claimed to be.

Overhead 6-C
FRE 401: Definition of "Relevant Evidence"

- Relevance -- evidence must pertain to the fact in question and tend to make it more or less probable; the inspector should record everything -- do not make judgments on relevance in the field.

Overhead 6-D
FRE 602: Lack of Personal Knowledge

- Foundation -- preliminary evidence has been presented to demonstrate that the additional evidence is what the proponent says it is.

Also important concerning admissibility are:

- Competence -- person presenting evidence is capable of speaking authoritatively as an expert or based upon observation and experience.
- Credibility, reliability of witness.

Hearsay Evidence

Hearsay is any out-of-court statement (verbal, written, gesture) that is offered to prove the truth; it is not based on the witness' first-hand knowledge.

Hearsay statements are not generally admissible. However, there are exceptions, many of which are very valuable to EPA in getting information entered as evidence. We will discuss a few of these as we go along.

INSTRUCTOR NOTES	SUGGESTED CONTENT
DISCUSSION (15 min.)	**ILLUSTRATION OF EVIDENCE CONCEPTS**
Ask the group to provide suggestions for how EPA, through inspector and other testimony, would go about answering the question. (See more detailed explanation in Chapter 8.)	"Who cares if what you are holding is contaminated "gunk" unless you can show that particular "gunk" came from the particular site involved in this case and not from somewhere else?" In this hypothetical situation, what points must EPA be able to make in order to have this "gunk" and the sample results from it entered into evidence?
Overhead 6-E **"Who cares if what you...**	(Group makes suggestions for how evidence could be authenticated.)
After about five minutes of discussion, use the illustration to describe authentication. Overheads should be shown after each bullet point is covered.	
Overhead 6-F **Collection Conditions and Surroundings**	• Collection conditions and surroundings Inspector testifies that sample was collected at relevant date, site, 50 paces SW of office door; has photograph taken at time. Says "gunk" was oozing from a transformer he also has photo of.
Overhead 6-G **General Identity and Sameness**	• General identity and sameness Inspector testifies initials and date on sample bottle are his; color and consistency of material in bottle are same as he remembers; but less "gunk" in bottle than he put in there.
Overhead 6-H **Precautions to Assure Identity**	• Precautions to assure identity Inspector testifies he initiated chain of custody, carried and protected the sample until he delivered sample to lab person later that day; did not see sample again until just before the hearing.

INSTRUCTOR NOTES	SUGGESTED CONTENT
Overhead 6-I **Present Conditions Which Vary**	• Present conditions or features which vary Inspector testifies the exhibit seems to be the same container, but there is presently less "gunk" than what he put in the container.
Overhead 6-J **Representativeness of Item**	• Representativeness of item Inspector testifies there were 88 other transformers at same site on relevant date also oozing "gunk" of same color, viscosity, odor. He took same amount of "gunk" from each using same identifying, marking procedures.
Overhead 6-K **Connecting Up -- The Chain of Custody**	**Connecting Up -- The Chain of Custody** Lab person testifies she received sample from inspector, used all EPA approved and other authoritative techniques to analyze the missing portion of the "gunk." Describes how she took raw data notes, printout from the various machines used, all initialed, and locked them in her safe along with the "gunk"-filled container. Only she has a key to the safe. Because connection of the "gunk" to the site has already been established, her testimony and documents regarding test results are relevant and admissible as well.
LECTURE (30 min.)	**DOCUMENTING EVIDENCE**

FRE treats all evidence (except for "real" evidence, e.g., the "gunk") as statements:

Verbal -- inspector testimony
Written -- documents, reports, sample tags, etc.

As noted earlier, hearsay statements are not admissible, unless one of the exceptions applies. These exceptions help the inspector tell his or her story through testimony and documented evidence.

Inspector's Written Documentation

To ensure admissibility, it must be created routinely and contemporaneously with events being described.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

- Field Logbook

  Core documentation. Preferably in bound notebook, should have notes on every aspect of inspection, correlated to all evidence collected such as physical samples, interviews, photographs, copies of documents.

  Notes can be concise, but enough to refresh memory for writing narrative to prepare for testimony. Facts only, no legal conclusions; subject to discovery.

- Inspection Report

  The narrative report expands on notes in the logbook and adds other relevant and important details the inspector remembers.

  Should be written as soon as possible after the inspection and be as thorough as possible.

  Should be accurate, objective, relevant, and cover all major items. Other documents of the inspection (e.g., photos, chain of custody forms, notices, receipts) should be referenced.

  Information should be first-hand, or specifically who or what is source noted.

Overhead 6-L
FRE 612: Writing Used to Refresh Memory

The logbook and inspection report are subject to disclosure to opposing side because they will be reviewed to refresh the inspector's memory in preparation for testimony.

Inspector can be cross-examined about contents without necessarily being shown the document beforehand. Keep this in mind when preparing such documents.

If inspector is expected to make recommendations or conclusions regarding compliance status this should be set forth on a separate page and addressed to the Office of Regional Counsel or inspector's supervisor; can then invoke attorney-client or deliberative process privileges to shield from disclosure.

INSTRUCTOR NOTES	SUGGESTED CONTENT
Overhead 6-M **FRE 803 (5): Recorded Recollection**	Logbook, report can be admitted in evidence in lieu of inspector's testimony if proper foundation is laid.
Overhead 6-N **FRE 803 (6): Records of Regularly Conducted Activity**	Logbook, report may be admitted as a record of regularly conducted activity. Must have been created contemporaneously and be kept in the regular course of Agency activity, and be regular practice to keep them.
	Chain of Custody
	Purpose is to be able to trace possession of evidence from time it was obtained until introduced as evidence.
	Documenting chain of custody means keeping an accurate written record.
Overhead 6-O **Evidence is in "custody" if...**	Evidence is in "custody" if: • In actual possession, control, and presence of inspector • In his or her view • In a place of storage where only inspector has access • In a place of storage where only inspector and identified others have access
Overhead 6-P **Basic Chain of Custody Procedures**	Basic procedures for chain of custody: • Establish custody: seal with seal that readily shows if broken. Sign and date seal. • Prepare evidence documentation: written information describing collection, shipment, storage of the evidence. Can include entries in logbook, seal, chain record, field sample data forms, shipping records. • Ensure custody during transit: Chain record should reflect each person in custody of sample and where stored; any special care in storage (e.g., refrigeration); any deviation from the custodian's usual practice. • If seal is found broken or an irregularity with documentation, note on form and contact prior custodians to remedy or determine if sample needs to be re-taken.

INSTRUCTOR NOTES **SUGGESTED CONTENT**

Special considerations for shipping: Chain record must accompany; inspector keeps a copy. Obtain bill of lading. Include all receipts and shipping documents with chain record.

Applicable FRE are essentially the same for sample tags, custody forms, as for logbooks and reports.

Other Tips on Chain of Custody:

- Take only as many samples as needed.
- If a team, be sure each sample can be tied to a particular inspector.
- If any errors in forms, make a single line crossout, then initial and date.
- Be sure to get the signature of the next person in the chain before relinquishing custody.
- When receiving custody, check the seal integrity and cross-check documents.
- Minimize the number of people in the chain.

Another FRE, Habit: Routine Practice, is also particularly applicable.

Overhead 6-Q
FRE 406: Habit; Routine Practice

Allows inspector to testify about his/her habits or the routine practice of the organization to prove that he/she or the organization was conforming to habit without needing an eyewitness to the inspection.

This rule is a major reason it is so important to perform functions and create documents routinely. Even after many intervening months, inspections, and samples collected, inspector can testify that even though he/she can't remember specifically, he/she followed standard procedures or there would be a note about any deviation.

Photographs/Other Demonstrative Evidence

Chain of custody procedures do not apply (though needed if camera is automatically triggered and no one was present to view the scene actually being photographed).

All inspector must say to lay information is that the photograph "fairly and accurately" represents the scene on the day in question.

To ensure this is possible, create entries in field logbook, including:

- Identifying number
- What is seen
- Date and time
- Specific location on premises (schematic is helpful)
- Other descriptive information

Maps and diagrams are also admissible on the same terms: "Does this fairly and accurately reflect what you saw at the facility?"

Statements of Individuals as Evidence

Statements of individuals carry as much weight and are as persuasive (or more so) than samples and documents gathered during an inspection.

The FRE define "admissions by party-opponents as not hearsay: this means almost anything said by anyone associated with the facility being inspected is admissible evidence against the facility or individual.

Even if not used as evidence, oral statements are extremely useful in developing leads and making cases. In sum, ask questions!

Documenting Facility Records

Records include documents, reports, receipts, messages, notes, phone logs, printed manuals, accounting ledgers, computer printouts, tape recordings, photographs, etc. All of these are considered "statements" and are admissible as such.

As statements, they are admissible under the same FRE as those we have just discussed. Also, they may be admissible under the business record exemption (FRE 803 (6)).

The absence of records -- frequently what may be most important -- is admissible under FRE 803 (7).

To authenticate records, the inspector must be able to show, at a minimum, they were gathered during the particular inspection and demonstrate the records' authorship, location, and distribution.

Ideally, the inspector will also be able to show the records were safeguarded between collection and enforcement proceeding.

Documentation procedures: Date and initial, make notes in field logbook about exact source/location of records, assign an identifying number.

Exercising Judgment in the Field

Time, resource, and logistical constraints make it impossible to fully inspect for and document every potential violation; the inspection plan and field judgments determine what actually happens.

Inspectors may find more potential violations than it is possible to fully document on one visit. In these situations, inspectors should use their knowledge of program priorities and hierarchy of violations, and fully document the violations which are most serious. Other violations should be documented to the extent possible as a second priority.

The more thoroughly an inspector understands environmental statutes and regulations, the better judgments he or she will make in the field.

INSTRUCTOR NOTES	SUGGESTED CONTENT
DISCUSSION (10 min.)	**EVIDENCE ISSUES**
The topic of evidence is perhaps the most complex and misunderstood. Be sure to allow 10 minutes at the end to provide an opportunity for questions and answers.	(Questions from the trainees.)
	This material is covered more thoroughly in Chapter 8 of the text.

SESSION 6: EVIDENCE

- What Is Evidence
- Documenting Evidence
- Ensuring Admissibility

Text: Chapter 8

FEDERAL RULES OF EVIDENCE

RULE 901
AUTHENTICATION AND IDENTIFICATION

"... a condition precedent to admissibility is satisfied by evidence sufficient to support a finding that the matter in question is what its proponent claims."

FEDERAL RULES OF EVIDENCE

RULE 401
DEFINITION OF "RELEVANT EVIDENCE"

"... evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence."

FEDERAL RULES OF EVIDENCE

RULE 602
LACK OF PERSONAL KNOWLEDGE

"A witness may not testify to a matter unless evidence is introduced sufficient to support a finding that the witness has personal knowledge of the matter. Evidence to prove personal knowledge may, but need not, consist of the witness' own testimony..."

Who cares if what you are holding is contaminated “gunk” unless you can show that particular “gunk” came from the particular site involved in this case and not from somewhere else?

OVERHEADS 6-E

COLLECTION CONDITIONS AND SURROUNDINGS

- Activities performed at site
- Why the sample was taken
- How the item was discovered
- Appearances of physical items in the immediate vicinity

Aids: Notations in field logbook
Photographs of area and exact location of sample

GENERAL IDENTITY OR SAMENESS

Item has the same characteristics as the item collected by the inspector

Aids: Routine documentation procedures
Sample tags with inspector signature and date
Notations in logbook regarding color, consistency, other sensory perceptions

PRECAUTIONS TO ASSURE IDENTITY

Other precautions taken to ensure later identification

Aids: Assignment of sample number
Initiation of chain-of-custody procedures

PRESENT CONDITIONS WHICH VARY

Any features or conditions about the item being offered in evidence that vary from what was collected.

Aids: Full description in logbook

REPRESENTATIVENESS OF ITEM

Establishes the relationship of the item offered as evidence to other items.

Aids: Notations in logbook on sampling strategy used to select the particular sample

Sampling plan

CONNECTING UP — CHAIN-OF-CUSTODY

The meticulous process of showing the succession of persons who handled and/or had access to the exhibit.

Aids: Chain-of-custody forms

Testimony regarding adherence to routine security measures

FEDERAL RULES OF EVIDENCE

RULE 612
WRITING USED TO REFRESH MEMORY

"... if a witness uses a writing to refresh memory for the purpose of testifying, either —

(1) while testifying, or

(2) before testifying ...

an adverse party is entitled to have the writing produced at the hearing, to inspect it, to cross-examine the witness thereon, and to introduce in evidence those portions which relate to the testimony of the witness..."

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FEDERAL RULES OF EVIDENCE

RULE 803 — HEARSAY EXCEPTIONS
803(5) RECORDED RECOLLECTION

“A memorandum or record concerning a matter about which a witness once had knowledge but now has insufficient recollection to enable the witness to testify fully and accurately, shown to have been made or adopted by the witness when the matter was fresh in the witness’ memory and to reflect that knowledge correctly...”

OVERHEADS 6-M

FEDERAL RULES OF EVIDENCE

RULE 803 — HEARSAY EXCEPTIONS
803(6) RECORDS OF REGULARLY CONDUCTED ACTIVITY

" A memorandum, report, record, or data compilation, in any form, of acts, events, conditions, opinions, or diagnoses, made at or near the time by, or from information transmitted by, a person with knowledge, if kept in the course of regularly conducted business activity, and if it was the regular practice of that business activity to make the memorandum, report, record, or data compilation..."

Evidence is in custody if...

- It is in actual possession, control, and presence of the inspector
- It is in his or her view
- It is in a place of storage where only the inspector has access

OR

- It is in a place of storage where only the inspector and identified others have access

BASIC CHAIN-OF-CUSTODY PROCEDURES

1. Establish custody

2. Prepare documentation

4. Ensure custody during transit

FEDERAL RULES OF EVIDENCE
RULE 406
HABIT; ROUTINE PRACTICE

"Evidence of the habit of a person or of the routine practice of an organization, whether corroborated or not and regardless of the presence of eyewitnesses, is relevant to prove that the conduct of the person or organization on a particular occasion was in conformity with the habit or routine practice."

SESSION 7
TOPIC: ELEMENTS OF AN INSPECTION
INSTRUCTOR'S OVERVIEW

Time: 60 minutes

Purpose

Summarize all aspects of the actual inspection

Focus on opening and closing conference and overview of data collection

Explain how field logbook serves as core documentation

Key Points

An inspection includes all activities associated with the inspection prior to, during, and after an on-site visit.

Record reviews, physical sampling, interviews, and observations are all types of data collection.

Inspectors should never make statements to facility officials that could compromise the government's ability to pursue an enforcement action later.

Advance Preparation

Overview material from several text chapters; specific text references are Chapters 11, 15A, and 16.

Bring an example of a field logbook to show.

Equipment

Overhead projector

List of Visuals

7-A -- Topic Summary
7-B -- Elements of an Inspection
7-C -- Pre-Inspection Activities
7-D -- On-Site Activities
7-E -- Post-Inspection Activities
7-F -- Field Logbook
7-G -- Never Say --

Suggested Teaching Outline

Lecture:	Elements of an Inspection	15 minutes
Lecture:	Opening Conference	10 minutes
Lecture:	Data Collection	10 minutes
Lecture:	Field Notes/Logbook as Core Documentation	10 minutes
Lecture:	Closing Conference	15 minutes

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
Introduction	Introduce yourself, including background, EPA experience, your role in the course.
LECTURE (10 min.)	**ELEMENTS OF AN INSPECTION**
The purpose of this session is to give a brief overview of the more detailed sessions that will follow on the various elements of an inspection. The session will also cover key issues and procedures related to the inspection process.	For the first day of training, we have tried to provide you with an overall understanding of: • The importance of inspections and inspectors to the Agency's mission, • How inspections and inspectors fit into the whole compliance and enforcement process, and • The legal underpinnings of our inspection authorities and the procedures we use to ensure that our inspections result in lawfully obtained, readily admissible evidence.
Overhead 7-A **Session Topics**	Now we will begin to focus in depth on the inspection itself. In this session, we will give you an overview of the elements of an inspection and rough chronology of likely events in planning for, conducting, and following up an inspection. We will also cover some concepts, principles, and procedures governing all inspections. This session will set the stage for the rest of the training course, in which we will be covering in detail the specific activities and techniques involved in conducting inspections.
Overhead 7-B **Elements of an Inspection**	The chronology of an inspection provides a useful framework for discussion of the many activities associated with inspections. It is important to realize that an inspection is more than just the actual time spent at a facility, or what we have termed "On-Site Activities." An inspection also includes everything that is done in advance to prepare for the inspection -- "Pre-Inspection Activities" and all the steps taken after the inspection until the file on that inspection is closed -- "Post-Inspection Activities."

INSTRUCTOR NOTES

The notes next to each bullet item in the Suggested Content column are activities associated with each activity category. This section of the session should be very brief; use only a few of these (or your own) examples since these topics will be covered in detail in later sessions.

Overhead 7-C
Pre-Inspection Activities

Overhead 7-D
On-Site Activities

SUGGESTED CONTENT

- Pre-Inspection Activities

Careful advance preparation is needed to assure that an inspection is efficiently and effectively executed. While no necessarily an exhaustive list, this slide shows some of the key components of pre-inspection activities.

-- Selection of Inspection Site -- which specific facility is to be inspected; how will it be/was it selected for inspection and why

-- Review of Agency Records -- what do we already know about this facility (e.g., permit and/or regulatory requirements that apply, types of processes and operations, self-monitoring data, compliance history)

-- Inspection Plan -- Specific objectives of the inspection, the questions that the inspection should answer, the inspection techniques that will be used to answer them, the protocols or SOPs to be followed; quality assurance project plan if sample collection is involved

-- Coordination -- as needed between program office, ESD, lawyers, States; also within inspection team

-- Administrative Planning -- planning and paperwork for travel, pay administration, procurement aspects of the inspection

- **On-Site Activities**

-- Entry/Opening Conference -- getting into the facility, opening meeting with facility managers to get "lay of the land"

-- Data Collection -- the heart of the inspection is collecting the data that will answer the compliance questions that have been posed. There are four basic data collection techniques:

  - Records Review
  - Physical Sampling
  - Observations/Illustrations (Photos)
  - Interviewing

-- Closing Conference -- what can and cannot be said to facility managers, receipts.

INSTRUCTOR NOTES	SUGGESTED CONTENT
Overhead 7-E **Post-Inspection Activities**	• **Post-Inspection Activities**

-- Inspection Report -- The Agency's record of what happened on the inspection; reports the facts; is basis for Agency's action

-- Official Files -- includes all pertinent documents, forms, photos, receipts, custody records, etc.

-- Laboratory Analysis -- if samples were collected, lab analysis is part of the inspection; lab results are often critical substantiating evidence

-- Enforcement Action -- based on inspection report, inspector recommendations, Agency policy, a decision is made whether and what type of enforcement action should be taken

-- Settlement Negotiations -- 98% of cases are settled; inspector has important role in government's side of negotiations

-- Hearing/Trial -- if case not settled, goes to trial; inspector is key witness

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Many of the activities will be covered in depth during the remaining sessions of the training course. We will address a few critical issues and procedures now.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

LECTURE (10 min.)

OPENING CONFERENCE

The purpose of the opening conference is to:

- Explain the purpose and scope of the inspection, in general terms, without detailing the precise focus
- Provide the inspector with a fuller understanding of facility operation

The opening conference sets the tone for the remainder of the inspection. It also provides an opportunity for the inspector to function as a public relations liaison and educator for EPA. This topic is covered in Chapter 11B.

Option would be to ask the group to give suggestions for what should and should not be discussed at the opening conference.

Key areas to address in understanding facility operation include:

- The nature of the operations.
- The major facility environmental programs.
- The applicability of environmental regulations.
- Key responsibilities, authorities, and accountabilities.

In addition, the following logistical items should be discussed:

- Accompaniment
- Safety requirements
- Inspection timetable
- List of records to be reviewed (unless such advance warning might jeopardize access to accurate information)
- Right to duplicate samples (e.g., CERCLA, FIFRA, RCRA)

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

The information obtained during the opening conference may lead to adjustments in the inspection plan only if:

- Resources are available
- Equipment is available
- Expertise is available
- Time is available

LECTURE (10 min.)

DATA COLLECTION

Data collection forms the heart of the inspection. Everything that the inspector sees, hears, smells, and touches (tasting is not recommended) is data that can be used to assess and confirm the compliance status of a facility.

For environmental compliance inspections, four basic data collection techniques are employed.

- Records Inspection
- Interviews
- Physical Sampling
- Observations/Illustrations

Each of these will be discussed in more detail later in the course.

The combination of techniques that are expected to be employed at an inspection site should be planned in advance based on the nature and scope of the inspection.

- Records inspection: Important investigative skill, but difficult due to variety and complexity of records requirements, types of recordkeeping systems, and ways which records can be used to identify and document compliance problems.

- Interviews: Highly valued, but often underutilized means of gathering information in an inspection; good evidence that is usually admissible. Can develop facts that might otherwise be missed.

- Physical sampling: Confirms the presence, concentration, and/or extent of a contamination problem; confirms whether permit limits being met or exceeded. Often the pivotal evidence.

- Observations/Illustrations: Inspector notes; photographs; drawings and schematics. Photographs especially valuable evidence. Inspector field logbook as core documentation to be discussed later in this session.

General Principles for Data Collection

Following are some general principles to apply to data collection on inspections.

- Know how the information will be used.

  Like any data collection effort, it is essential to understand clearly how the information to be collected on an inspection will ultimately be used. Knowing this will drive how much data to collect and the level of quality that is needed to support the ultimate use.

  On compliance inspections, the data's ultimate purpose is, of course, to help the Agency assess the compliance of a facility and be of sufficient quality to support any enforcement actions that are pursued.

- Generally, the more certainty that is required, the more data is needed.

  By certainty, we mean how sure we are that the data represents actual conditions at the facility. There are degrees of certainty for all types of data collection.

  -- For example, a verbal statement by a facility manager admitting to a violative activity is pretty sure. It is even more sure if the person is willing to make a signed statement.

-- The many variables involved and practical limitations on such issues as precision and accuracy in the field and laboratory and representative sampling considerations make certainty a more complex problem for physical sampling. For this reason, SOPs for the various media often set out specific methods and procedures to assure that sample collection efforts meet data quality objectives.

Depending on the circumstances, more data can mean additional data of the same kind (more physical samples) or corroborating data (samples corroborated by statements by facility operators).

For compliance inspections, more certainty is generally desirable to substantiate the more serious violations, for which there is greater likelihood that a formal enforcement action will be pursued (e.g., administrative or judicial civil action including civil penalties). Strong data makes a strong case, increasing the likelihood of a settlement favorable to the government and successful prosecution if the case goes to a hearing or a trial.

- In general, borderline situations need more data.

For example, in gross contamination situations, all samples would easily be above the action level (and level of detection); confidence levels in the data are automatically high and challenges from the facility are unlikely. In the opposite situation, where contamination levels are anticipated to be at or close to the level of detection/action level, compliance will be difficult to determine conclusively and defend against challenge unless there is extensive data.

INSTRUCTOR NOTES	SUGGESTED CONTENT
LECTURE (10 min.)	**FIELD NOTES/LOGBOOK AS CORE DOCUMENTATION**

Overhead 7-F
Field Logbook

The logbook should contain accurate and inclusive documentation of all inspection activities. It is the basis for report preparation, and for refreshing an inspector's memory regarding sample collection and other procedures if testimony is required. This material is covered in Chapter 15A of your text.

All samples, documents, and other evidence collected should be fully documented in the logbook so that they can be traced to a particular date, location, purpose, inspector, etc.

Language in the logbook should be objective, factual, and free of personal feelings and conclusion of law. It is subject to discovery and can be seen by the opposing side.

The logbook should be bound with consecutively numbered pages. This helps to prove that pages were not removed.

Each inspector can develop his or her own shorthand or codes for notetaking. For example, the inspector might want to develop a code to note that certain routine procedures were followed, such as presentation of credentials.

Entries to logbooks should include:

- General information about the facility
- Notes on entry activities
- Identification numbers for samples, photos, and records
- Sampling procedures
- Interview notes
- Observations of general conditions and practices
- Unusual conditions or problems

- Other observations
- General procedures, any changes to SOPs and the reasons
- Administrative data.

Inspectors should avoid entering confidential data into the logbook. This is particularly true for TSCA-CBI. Copy confidential data on separate, loose pages. There are procedures for excising confidential data from field logbooks, but they are cumbersome.

Experienced inspectors offer the following tips about the field logbook:

- Use a new logbook for each inspection. It can go right in the file for that inspection, and there is never a danger that information from another inspection would ever be subject to discovery by the opposing side.
- Use a logbook that will fit in your pocket. There is a government-issue small black notebook that meets the requirements of being bound with consecutively numbered pages.
- Make sure the ink you use in your logbook is waterproof. Not all inks that say they are waterproof really are.
- Tape any business cards you receive, such as at an opening or closing conference, into the front of your logbook. This helps later in writing the inspection report: you have all the names, titles, addresses and phone numbers in one place.
- If two or more inspectors are present during an interview, only one should take notes. There are bound to be apparent "contradictions" in notes taken by different people; both would be subject to discover and the differences could hurt the government's credibility.

INSTRUCTOR NOTES	SUGGESTED CONTENT
LECTURE (15 min.)	**CLOSING CONFERENCE**
	The purpose of a final meeting with facility officials is to provide receipts, answer questions, and fill any remaining information gaps. This material is covered in Chapter 16A of your text.
	Did you find any violations?
	Facility officials are, needless to say, quite interested in what the inspector has found. Handling questions at the end of the inspection is one of the more delicate and difficult aspects of the job.
	Different offices and inspectors have somewhat different approaches as to what can be said.
	However, under no circumstances should the inspector say anything that could potentially compromise the government's ability to later determine whether a violation occurred and whether and what type of enforcement action to pursue.
	• An inspector should never say "everything checks" or "there are no violations."
	• An inspector should never say what equipment a facility should put in place or other actions a facility should take to come into compliance.
Overhead 7-F **Never say...**	• The inspector can say that there are some items the facility might want to re-check for compliance purposes. An example would be: "You might want to check regulation x with regard to label requirements."
	• The inspector can say that he/she thinks he/she did not discover matters that he/she personally felt were violations of law or regulations, except certain items about which an "institutional" EPA decision has not yet been made.

- Some programs are now experimenting with the idea of having inspectors issue citations for minor violations while at the facility (or shortly thereafter). This may sound like it is counter to the admonition here of not telling the facility right away. However, these citations are very carefully worded so that future Agency action is never precluded or compromised by them.

There are several reasons for the Agency's policy of not telling facility managers right away if any violations were (or were not) found. It is for the protection of both the inspector and any potential government case.

- If the inspector tells facility officials that there were no violations, and later the government decides that a violation did exist, the company will use the inspector's statement against the government.

- If an inspector tells a company there is a violation, the company might spend money on new equipment to try to get into compliance. They might try to hold the inspector liable for the costs if it turns out later that there really wasn't a violation.

- The inspector has not had time to reflect on everything that was observed.

- Results of laboratory analysis from the samples collected on the inspection will not be available for some time.

- The intricacies of EPA laws and regulations do not lend themselves to "off the cuff" answers.

- Inspection findings may represent only one portion of an enforcement case.

Can I see (or copy) your notes?

Facility officials know that you have been taking notes. Sometimes they ask to see or copy them.

Agency policy is to not let facilities see notes in the absence of a FOIA request. (The request may often be complied with, but the Agency has a 10 day period to decide and respond.) Do not let them see notes on site.

Receipts

Some statutes require EPA to issue receipts for samples; documents and other evidence may also be included on the receipt. The receipt should include:

- A description of all physical samples taken.
- A description of all records, photographs, or other property taken. This is especially critical when inspecting with a warrant.

The detailed receipt protects the Agency by showing that facility officials know exactly what was taken; it also facilitates making confidentially claims.

When the statute provides for confidentially claims, the closing conference -- and the receipts -- provide an opportunity for facility officials to make such claims.

Use these questions to stimulate discussion.

The following questions can help stimulate discussion:

- Are there any circumstances when an inspector should tell a company that it definitely has a violation?
- Do any of the offices/programs in your Region issue "deficiency notices" ("tickets") while still on-site? Immediately upon return to the office? What are the advantages and disadvantages?

SESSION 7: ELEMENTS OF AN INSPECTION

- Elements of an Inspection
- Recap on Entry
- Opening Conference
- Data Collection
- Field Logbook
- Closing Conference

Text: Chapters 11, 15A, 16A

ELEMENTS OF AN INSPECTION

- Pre-Inspection Activities
- On-Site Activities
- Post-Inspection Activities

PRE-INSPECTION ACTIVITIES

- Selection of Inspection Site
- Review of Agency Records
- Inspection Plan Preparation
- Coordination
- Administrative Planning

ON-SITE ACTIVITIES

- Entry/Opening Conference
- Data Collection
    - Records Review
    - Physical Sampling
    - Interviewing
    - Observations/Illustrations
- Closing Conference

POST-INSPECTION ACTIVITIES

- Inspection Report
- Official Files
- Laboratory Analysis
- Enforcement Action
- Settlement Negotiations
- Hearing/Trial

FIELD LOGBOOK

- In ink
- Factual; no opinions
- Full record of the inspection

NEVER SAY...

- "Everything checks"

or

- "There are no violations"

SESSION 8
TOPIC: INSPECTION PLANNING
INSTRUCTOR'S OVERVIEW

Time: 120 minutes

Purpose

Stress the importance of planning and advance preparation

Present information on key planning activities

Key Points

Planning in advance what to look for, how to look, and what documentation to collect saves time and money.

Advance Preparation

Text reference Chapter 9.

Identify one or two examples of failure to adequately prepare for an inspection, including consequences and steps taken to solve the problem.

Photocopy sufficient copies of handouts; three-hole punch for insertion in text.

Equipment

Overhead projector

List of Visuals

8-A -- Topic Summary
8-B -- Goal of Inspection Planning
8-C -- Know What to Look For
8-D -- Know How to Find It
8-E -- Know How to Collect/Document/Preserve Evidence
8-F -- Be Safe and Efficient in the Field
8-G -- Define Scope and Objectives
8-H -- Hypothetical Case #1
8-I -- Hypothetical Case #2

List of Handouts

8-1 -- Hypothetical Case
8-2 -- "Generic" Elements of an Inspection Plan

Suggested Teaching Outline

Discussion: When Plans Went Awry	15 minutes
Lecture: Importance of Planning/Preparation	10 minutes
Discussion: Key Planning Activities	20 minutes
Lecture: Defining Scope and Objectives	5 minutes
Problem-Solving: Planning a Hypothetical Inspection	50 minutes
Discussion: "Generic" Inspection Checklist	10 minutes
Lecture: Reviewing Agency Records	10 minutes

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
Overhead 8-A **Topic Summary**	Introduce yourself, including background, EPA experience, and your role in the course. Explain how the session is organized.
DISCUSSION (15 min.)	**WHEN PLANS WENT AWRY**
From your own experience and/or the anecdotes described in the Suggested Content column, tell the group some horror stories that resulted from inadequate planning. Then ask the group to discuss examples in which they were unprepared and what were the results, including how they handled the situation.	Remember that "Murphy's Law" applies to inspections as well as everything else: "If something can go wrong, it will." Lack of Planning Horror Stories: • A PCB inspector entered a facility to conduct a "routine" inspection. Once inside, he came upon some smashed capacitors in a puddle on the ground. The inspector had his sampling equipment with him, but had left his camera in his car. He went out to get it in order to document the spill, but when he re-entered the facility, the capacitors had been swept up and the puddle gone. • An NPDES inspector failed to put his container away on a windy day and it blew down the open manhole cover into the sewer system. When he tried to retake the sample, he discovered that he had not taken any extra containers with him. • The new inspector was going into the field with his supervisor for the first time. Eager to impress his boss, he had "done his homework" and knew everything about the facility, its compliance history, and the regulations it was subject to. During the inspection, the supervisor noticed a potential violation and told the new inspector to record it. He took out his inspection "checklist" and reached into his pocket to discover he forgot to bring a pen or pencil!

INSTRUCTOR NOTES	SUGGESTED CONTENT
	- An inspector was denied entry to a facility because he did not have a "hard hat" or a copy of his credentials. - An NPDES inspector set up an automatic sampler only to discover the battery was dead. He looked in the case and discovered he didn't have any extra batteries with him.
Ask the group for additional examples of plans that went awry.	This may be funny (when it happens to someone else) but it is embarrassing (when it happens to you) and can prevent you from conducting a successful inspection. Murphy's Law may still occur, but we can try to minimize it through careful pre-inspection planning...
LECTURE (10 min.)	**IMPORTANCE OF PLANNING/PREPARATION**
Overhead 8-B **Goal of Inspection Planning**	Planning and preparation are important to: - Focus the inspection on key issues - Make the most efficient and effective use of the time spent on site - Ensure that equipment, transportation, etc. will be available when needed - Ensure that proper procedures are followed.

INSTRUCTOR NOTES	SUGGESTED CONTENT
DISCUSSION (20 min.)	**KEY PLANNING ACTIVITIES**
Ask the group to suggest important planning or preparation activities prior to going on-site for an inspection, and to briefly discuss the importance of each activity. List on chart paper. At the conclusion of the discussion, the list should include at least the points shown in the Suggested Content column. **Use Overheads 8-C to 8-F and summarize key planning activities.**	What are the most important planning activities? • Understand the objectives of the inspection and the specific areas to be investigated • Arrange logistics, including travel to and from the site, any special travel needs, and hotel accommodations • Identify any special monitoring or analytical equipment needed and arrange to procure it • Review available records to become familiar with the facility • Assemble materials and equipment • Prepare QA/QC plan and safety plan • Coordinate with supervisors, attorneys, States, others as appropriate.
LECTURE (5 min.)	**DEFINING SCOPE AND OBJECTIVES**
Overhead 8-G **Define Scope and Objectives**	A first step in planning is understanding why the inspection is to be performed: • Reason: routine, for cause, case development support, follow-up • Scope: specific regulations • Depth: walk-through, records review, sampling, observation

INSTRUCTOR NOTES

SUGGESTED CONTENT

- Topics: specific control and treatment systems, records, self-monitoring, contingency plans/emergency plans, employee training, etc.

While not always necessary, it may be useful to consult with the appropriate attorney to ensure complete understanding and an effective plan of action.

PROBLEM-SOLVING
(50 min.)

PLANNING A HYPOTHETICAL INSPECTION

There are two hypothetical cases to discuss. The first is to be discussed in small groups (Case #1, Handout 8-1). The second, which is a more complex situation, is to be discussed by the full group (Case #2, Overhead 8-1).

Break the group into smaller groups by either (1) program or (2) years of experience. Distribute Handout 8-1.

Allow 15 minutes for small group discussion. Note that trainees can plan the inspection around the program area with which they are most familiar (e.g., air, water, toxics, hazardous waste). During the small group discussions, circulate to provide guidance as needed.

To be a good inspector, one must "think like an investigator." Each inspection will present somewhat different issues, and there is never a single right way to approach an inspection.

To help us sharpen our investigative planning skills, I am going to pose two hypothetical situations, each presenting a unique kind of inspection problem yet representative of common inspection situations.

For each hypothetical inspection, we will develop a strategy including the focus of the inspection, information to be gathered, and methods to be used to gather the information.

After we discuss each one, I will tell you how a group of senior program experts thought they would approach the inspection to see how they compare with our ideas.

You have about 15 minutes to plan an inspection for the case your group has been assigned.

INSTRUCTOR NOTES

Overhead 8-H - Case #1

Reconvene group and go through questions. Have each group discuss how they approached the question. Material in the Suggested Content column should be added if not contributed by the groups. This discussion will give trainees an idea of what other programs do in addition to what they do in their own program.

Allow 15 minutes for this discussion.

SUGGESTED CONTENT

Discussion of Hypothetical Case #1

1. What would the inspector do first?

   Determine the focus and objectives of the inspection. What activities would be appropriate for a Compliance Evaluation Inspection (CEI):

   - Walk-through (broad brush)?
   - Records review?
   - Sampling?

2. What sources would the inspector use to help define the focus/objectives and to decide how much attention should be given to specific areas?

   - Conduct file review to develop a "snapshot" of the facility:

     a. size
     b. industrial processes
     c. permit requirements (deadlines, limits, waivers)
     d. compliance and monitoring requirements
     e. past enforcement history (State and Federal)

   - Check with compliance and enforcement personnel to help determine potential priorities or major types of violations.

This will help an inspector decide how broad or focused an inspection to conduct and what to look for. It will also help an inspector decide whether it will be necessary to take samples, which are not always SOP for "routine" inspections.

(EXAMPLE: Waste sampling is generally not performed during a routine RCRA compliance inspection. However, sampling may be necessary to verify the identity of wastes managed at the facility, especially if the inspector thinks there may be a discrepancy between the waste reported at a facility and the wastes normally generated or managed in that industry.)

INSTRUCTOR NOTES	SUGGESTED CONTENT
	3. What would be included in the inspection? • Required recordkeeping (e.g., DMRs, lab records for NPDES; manifests, waste analysis plans, closure and post-closure plans for RCRA). • Employee protection or training requirements (e.g., training plan, hazards prevention plan, contingency plan for RCRA).
Ask the class how much emphasis would be given to each of these components, and why.	• Technical requirements and practices: pollution control, treatment and monitoring systems (e.g., waste storage areas, marking, groundwater monitoring, operations and maintenance for RCRA; flow measurement, sludge disposal, O&M for NPDES; correct calibration of continuous monitoring equipment for Air).
	4. For this type of inspection, would an "announced" or "unannounced" inspection be more likely? Why?
	5. Decision on necessary equipment for safety/sampling. Be conservative, if there is any possibility that you might need to take samples, bring the equipment along.
Overhead 8-1 - Case #2	**Discussion of Hypothetical Case #2**
Go through this case as a total group. Focus on how this case differs from the routine case. Allow about 20 minutes for this discussion. Emphasize the need to coordinate with other players as necessary.	An allegation has been made that a company is dumping a hazardous chemical into a nearby stream or river.

INSTRUCTOR NOTES	**SUGGESTED CONTENT**

1. What would the inspector do first?

   Try to verify the likelihood or credibility of the allegation.

   Sources:

   - State or local officials with knowledge of facility.
   - EPA records on compliance history (prior AOs, civil action, citizen suits on file with the Regional Counsel, etc.). Since a dumping allegation, especially consider checking RCRA files or conferring with RCRA inspectors.
   - Citizens living along body of water adjacent to facility.
   - Any other possible contacts inspectors can think of?

2. If an inspector decides an allegation is credible, what next?

   Need to know:

   - What chemical/chemicals are being dumped?
   - Is dumping coming from discharge from plant or being transported off-site to water?
   - Is dumping continuous, periodic, or a one-time occurrence?

INSTRUCTOR NOTES	SUGGESTED CONTENT

3. How would a inspector try to get the information?

   - Check permit (or permit application):

     - What facility makes
     - What kind of treatment processes it has
     - Kind and quantity of hazardous chemicals that can be used and legally discharged.

   - Possible clues in facility's production records?

   - Possible clues in facility's DMR (self-monitoring report)?

   - Fruitful to talk to plant employees? (Would they likely talk to you?)

   - Any information from State/local government about discolorations/plumes/fumes at particular points at particular times (e.g., after heavy rains)?

   - Aerial maps, physical assessment of site/water give clues to dumping location?

4. Based on information you get (and strength of it), what are your options for the type of inspection to conduct?

   (There is no "right" or "wrong" answer, but class discussion can discuss pros and cons of each):

   A. A Compliance Evaluation Inspection (CEI) and review normal treatment processes and production records

      - Consider bringing a RCRA inspector along?

INSTRUCTOR NOTES **SUGGESTED CONTENT**

B. A "For Cause" Inspection and confront the plant managers with the allegation.

- Consider bringing a criminal investigator along?

(Or at this point would the class consider the option of referring the allegation to a criminal investigator?)

5. Once decided how to proceed, (assuming it is not yet referred as a criminal violation "tip") what equipment/sampling protocols, etc., need to be considered?

   - Difficult to come up with a sampling methodology to detect the dumping if not continuous, but discuss what equipment the inspector might bring.
   - Do production records, permits give clue to volume of what is being dumped?
   - Briefly review need for safety, QA/QC (and mention these topics will be discussed more fully in separate sessions).

6. Summary: No "right" answer to this hypothetical, but it shows the importance of doing a thorough records review and consulting with other players to develop the focus of the inspection and how to approach it.

DISCUSSION (10 min.) **"GENERIC" INSPECTION CHECKLIST**

Distribute Handout 8-2, the "Generic" Elements of an Inspection Plan.

Go through the questions and relate to points raised in discussion of Hypothetical Cases #1 and #2.

This "Generic" Inspection Checklist asks the kinds of questions that should be considered before any inspection. It helps organize the planning process to ensure no steps are left out.

INSTRUCTOR NOTES	SUGGESTED CONTENT
LECTURE (10 min.)	REVIEWING AGENCY RECORDS

Why review Agency records:

- Become familiar with the facility type, size, and operations.

- Discover inadequacies, inconsistencies, or voids in the information, thus determining the need to request additional information from the facility.

- Minimize inconvenience to the facility personnel or unnecessary use of on-site time by not requesting information already provided to the Agency.

- Clarify technical and legal issues before entry.

- Develop an appropriate Inspection Plan that documents this information and applies it to shaping a methodological design for the most efficient use of inspection time and manpower resources.

What to look for:

- Facility information

  - Facility information, diagrams, photos

  - Special entry requirements

  - Process operations and production levels

  - Control equipment

  - Recordkeeping systems

  - Safety requirements

  - Permits, permit applications, special exemptions

INSTRUCTOR NOTES	SUGGESTED CONTENT

  - Prior inspection reports, reports on enforcement actions
  - Self-monitoring reports
- Laws and regulations
- Technical reports relevant to processes and contracts.

Where to find this information:

- Facility files in EPA Office
- Computerized systems

HANDOUT 8-1

Hypothetical Case #1

A manufacturing plant has been randomly selected for a routine inspection. No violations are suspected or reported. A one-day inspection is planned. What would you include in your inspection? Remember -- with only one day you cannot do everything!

1. How would you determine objectives and scope of inspection?
2. What should be included in the inspection?
3. How would you plan to spend your day at the facility and what arrangements would need to be made?
4. What equipment and other materials would you need?
5. What other issues must be considered prior to the inspection?

HANDOUT 8-2

"GENERIC" ELEMENTS OF AN INSPECTION PLAN

- OBJECTIVES
  - What is the purpose of the inspection?
  - What is to be accomplished?
- TASKS
  - What records, files, permits, regulations will be checked?
  - What coordination with laboratories, other programs, attorneys, State or local government is required?
  - What information must be collected?
- PROCEDURES
  - What specific facility processes will be inspected?
  - What procedures will be used?
  - Will the inspection require special procedures?
  - Has a QA/QC plan been developed and understood?
  - What equipment will be required?
  - What are the responsibilities of each member of the team?
- RESOURCES
  - What personnel will be required?
  - Has a safety plan been developed and understood?
- SCHEDULE
  - What will be the time requirements and order of inspection activities?
  - What will be the milestones? What must get done vs. what is optional to get done.

SESSION 8: INSPECTION PLANNING

- When Plans Went Awry
- Importance of Planning
- Key Planning Activities
- Defining Scope and Objectives
- Reviewing Agency Records
- Checklist

Text: Chapter 9

GOAL

Identify all activities necessary to gather information to assess if facility is in compliance and for evidence in possible enforcement action

HOW TO ACCOMPLISH GOAL

BE PREPARED!

KEY PLANNING ACTIVITIES

KNOW WHAT TO LOOK FOR

- Identify **Type** of Inspection:
    - Compliance Evaluation
    - Routine
    - For Cause
    - Oversight
- Define **Objective** of Inspection
- Decide **Focus** of Inspection

6

KEY PLANNING ACTIVITIES (CONT'D)

KNOW HOW TO FIND IT

- Review Records, Permits
- Know Compliance History
- Talk with Attorneys, Other Inspectors
- Contact State, Local Officials

KEY PLANNING ACTIVITIES (CONT'D)

KNOW HOW TO COLLECT/DOCUMENT/PRESERVE EVIDENCE

- Know What Non-Technical Evidence is Needed
- Identify Kind/Quantity of Physical Samples Needed
- Identify Right Equipment in Good Working Condition
- QA/QC Plan for Documentation, Chain-of-Custody, Transportation

KEY PLANNING ACTIVITIES (CONT'D)

BE SAFE AND EFFICIENT IN THE FIELD

- Develop Safety Plan
- Right Safety Gear in Good Condition
- Define Tasks of All Members of Inspection Team
- Arrange Logistics in Advance:
    - Travel
    - Pay
    - Transportation
    - Lodging
    - Special Equipment

DEFINE SCOPE AND OBJECTIVES

- Reason
- Scope
- Depth
- Topics

HYPOTHETICAL CASE #1

A manufacturing plant has been randomly selected for a routine inspection. No violations are suspected or reported. A one-day inspection is planned. What would you include in your inspection?

HYPOTHETICAL CASE #2

An allegation has been made that a company is dumping a hazardous chemical into a nearby stream or river. How would you investigate?

SESSION 9
TOPIC: ADMINISTRATION
INSTRUCTOR'S OVERVIEW

Time: 60 minutes

Purpose

Respond to questions concerning administrative procedures.

Note: This session is not long enough to cover all administrative issues -- it is essential that trainees read Chapter 10 in the manual prior to the session.

Provide experience in planning for administrative needs

Key Points

Anticipate administrative needs in advance and obtain the proper forms, authorizations, signatures, etc.

An inspector can be held financially liable for unauthorized purchases.

Advance Instructor Preparation

Text reference Chapter 10.

Review your office's administrative procedures.

Prepare a handout with names, phone numbers, and addresses of people/organizations that inspectors should contact for information and/or approvals on administrative matters. (3-hole punch for insertion into the text notebook.)

Prepare handouts as needed on other Regional or office-specific administrative procedures.

Review case study and discussion questions.

Photocopy sufficient copies of the case study handouts for the entire group.

Advance Trainee Preparation

Read Chapter 10 in Manual prior to session.

List of Visuals

9-A -- Case Study Questions

List of Handouts

9-1 -- Administration Case Study

Suggested Teaching Outline

Question and Answer Session	30 minutes
Exercise: Administration Case Study	30 minutes

INSTRUCTOR NOTES	SUGGESTED CONTENT
Introduction	Introduce yourself, including background, EPA experience, and your role in this course.
QUESTION AND ANSWER SESSION (30 min.)	**OVERVIEW OF ADMINISTRATIVE ISSUES**

Inspectors must deal with a wide range of administrative procedures, such as procurement, shipping, travel, and in some situations, special pay. Often, inspectors must make decisions in the field concerning these issues, so it is important that you are familiar with correct administrative procedures, as well as technical and legal procedures. As most of you know, failure to comply may result in failure to be reimbursed.

The importance of pre-inspection planning cannot be emphasized too strongly. It is far easier to comply with administrative procedures if needs for tickets, equipment, sample shipping, boat rentals, etc., are anticipated in advance. With advance planning, necessary forms can be obtained, filled out, and signed. Any questions you may have can be answered. Chances of errors are reduced greatly.

Even with good advance planning, unanticipated purchases may be needed while you are on the road. It is important for you to know what to do if this happens, because you may have difficulty getting reimbursed for unauthorized purchases. You must also be familiar with procedures for changing travel plans.

Some employees on an inspection might be entitled to overtime pay, hazardous duty pay, or other specialized compensation. Familiarity with pay administration can help in planning and budgeting.

Once you arrive back at the office, it is essential to promptly complete travel vouchers and any other unfinished administrative paperwork associated with the trip. Failure to submit travel vouchers within the allowed time can result in you being prohibited from receiving future travel advances.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

Each inspection will present a unique set of travel and procurement needs. A skilled inspector is able to anticipate these needs as well as adapt to changes in the field, and knows how to perform the administrative steps for smooth processing of the required paperwork.

The Manual covers many administrative procedures that inspectors should understand; this session will not repeat what is covered in the text.

Ask the group for questions. Go topic by topic.

Discuss any questions concerning:

- Travel
  - Authorizations
  - Diners Club Card/cash
  - Airline tickets
  - Hotels
  - Vehicles
  - Reimbursement vouchers
- Pay Administration
- Procurement

Distribute Handout(s) of Regional contacts and Regional procedures.

EXERCISE (30 min.) | **ADMINISTRATION CASE STUDY**

Many of you are already familiar with administrative procedures in your office. To give you some practice in thinking about administrative matters, we have developed a case study that requires quite a bit of administrative planning as well as mid-course adjustments.

INSTRUCTOR NOTES	SUGGESTED CONTENT
Overhead 9-A **Case Study Questions**	As you work through the case study: • Identify all items that require an administrative action, and describe what kind of action is needed. Be prepared to discuss some of the trickier procedures. • Determine what steps might have been taken as soon as the problem was discovered that could have reduced the frantic planning, rather than waiting for a final decision on how to proceed.
Hand out the case study. Remain in the room to answer any questions.	You will have about 15 minutes to work on the case. You may not be able to work through the entire case in detail, but try to spend a little time with each of the questions. I will notify you when you only have 5 minutes remaining. Are there any questions?
Acknowledge that 15 minutes was not enough time to complete the exercise. Ask the group to discuss Question 1, listing the administrative items required for the trip; the Suggested Content column contains items to cover if not raised by the group. Record items on chart paper/ blackboard.	1. Identify all items requiring administrative action. Actions should include: • Fly to Pocatello - prepare travel authorizations - order tickets - make hotel reservations - make vehicle reservations - obtain travel advance • Make shipping arrangements - equipment, bottles, supplies - special analyzer - ship samples - ship equipment back to office • Prepare procurement requests - fluorometer lease - special dye - consultant - boat lease - helicopter lease - safety equipment for crew

INSTRUCTOR NOTES **SUGGESTED CONTENT**

- Pay considerations
  - overtime
  - compensatory time
  - hazardous duty pay
- Purchases in the field
  - shovels
  - ice
  - replace instrument
  - repair of boat propeller
- Change in travel plans
  - purchase new tickets
  - make airline/car/hotel/motel reservations
- Submit documents, file vouchers, and seek reimbursement
  - travel vouchers
  - Government Travel Request (GTR)
  - reporting field purchases
- Identify travel options
- Assess equipment needs (include helicopter, boat)
- Identify potential suppliers
- Locate analyzer and investigate transport options
- Identify consultant

Complete the discussion by asking the group how some of the last-minute planning might have been avoided (Question 2).

HANDOUT 9-1

ADMINISTRATION CASE STUDY

The Problem

On May 1st, the Regional Office/Idaho Operations Office heard about a potential illegal hazardous waste discharge or dumping. This alleged incident was having an impact on water quality in a lake in a remote area of Eastern Idaho. Little specific information about the incident was immediately available. No action was taken until more information could be obtained and upper management could decide whether to (1) conduct an investigation, (2) ask industry XYZ to look at their own problem, or (3) work out a joint study with the State agency.

On May 15th, a local environment group contacted their legislative representative who in turn notified the Regional Administrator of the urgency of this pollution problem. The Regional Administrator requested that a source and receiving water study be conducted within the next three days to determine the extent and nature of the problem.

Pre-Inspection Activities

Immediately, Regional/Operations Office Staff frantically began to develop a plan of study, work out logistics problems, assemble equipment, and coordinate the State and local agencies. Two FLSA exempt and one non-exempt employee worked one day on the weekend and two hours extra for two regular work days to prepare for the study. The plan they developed included the following activities:

- Field staff would fly to Pocatello, rent vehicles/pickups, and drive to the site.
- Equipment, bottles, and supplies would be shipped to the airport and transported to the site.
- Because not all necessary equipment and supplies were available in the Region, some items would be borrowed from other agencies or Regions, or leased commercially. Specifically, the Region must lease a lorometer and purchase a special type of dye, since a dye study may be required. Also, a special analyzer must be borrowed from another Region, but the Regional Officer/Idaho Operations Office must pay freight costs. A consultant must be hired, at an estimated $1,000.00, to operate the analyzer during the study.
- Because of the remoteness of the site, a boat must be leased to conduct a receiving water study. Because of short sample holding time, a helicopter would be needed to transport samples to Pocatello airport in time to fly samples to the Manchester Laboratory on a daily basis.
- Staff were concerned about potential exposure to hazardous substances either in the discharge or along the banks of the lake. Diving may be necessary or possible use of SCBAs if samples need to be taken in the dump area.

On-site Inspection Activities

During the investigation, the following activities occurred:

- Four days of sampling took place.
  - The first day total sample shipment cost from Pocatello to Sea/Tac Airport was $50.00.
  - The remaining three day's shipment varied from $90.00 to $300.00 per shipment.
- While in the field, the investigators found it necessary to purchase two shovels, purchase ice ($60.00), replace a $50.00 instrument, and repair a boat propeller.
- No diving was needed; however, three employees did wear respirators to collect several soil samples in a potentially contaminated area.
- All employees worked 10 hours per day for four days and 11 hours on the day they traveled to the site from the time they left Seattle to the end of the work day.
- When the investigation was complete, all equipment and supplies had to be shipped back to Sea/Tac and all employees had to return to Seattle by air. Two employees changed their flights to travel to different approved locations than originally scheduled.
- All sample results from the dump area were reported negative one month after completion of the study.

INSTRUCTIONS

Your task is to:

1. Identify all items requiring an administrative action, and what kind. Be prepared to discuss the trickier administrative procedures and considerations involved.
2. Determine whether there might have been steps that could have beeen taken before a final decision on how to proceed was made that would have avoided some of the frantic last-minute planning.

CASE STUDY QUESTIONS

1. Which items require an administrative action? What kind? What are the most difficult administrative tasks?

2. Could some of the last-minute planning have been avoided? How?

SESSION 10
TOPIC: PHYSICAL SAMPLING
INSTRUCTOR'S OVERVIEW

Time: 120 minutes

Purpose

Explain importance of physical samples as evidence

Present considerations involved in planning for and assuring that samples meet quality requirements

Provide overview of the sampling process from planning through disposal of contaminated equipment

Note: This session is not intended to teach inspectors show to sample.

Key Points

Physical samples are collected to establish the presence and concentration of regulated substances and the extent of contamination.

Sampling data helps determine whether a violation exists (e.g., exceedance of a standard) and its gravity (e.g., for penalty assessment purposes).

Sampling objectives and data quality requirements and how they will be met should be set out before the inspection in a quality assurance plan.

Standard collection and chain of custody procedures must be followed.

Advance Preparation

Text reference Chapter 13.

If possible, bring a few examples of typical sampling equipment to the session. Otherwise, select several slides of sampling equipment from the ones provided to use in explaining how typical samples are collected. See Attachment 10-1 for list of slides.

Make a handout of the Region's format for a Quality Assurance Project Plan, if one exists.

Bring examples, and/or make overheads of sample tags and seals and chain of custody forms used in your Region.

If possible, bring packaging materials and shipping containers and labels to use in a demonstration of how samples are packed for shipment.

Equipment

Slide Projector
Overhead Projector
Sampling Equipment
Packing and Shipping Supplies

List of Visuals

10-A -- Topic Summary
10-B -- General Guidelines for Sampling
  -- Slides of Sampling Equipment (Attachment 10-1)
10-C -- Representative Sampling Factors
10-D -- Common Sampling Errors
10-E -- Quality Control/Quality Assurance Samples
10-F -- Quality Assurance Project Plan (QAPP)
10-G -- Changes to the QAPP
10-H -- Evidence is in Custody If ...
10-I -- Chain of Custody Procedures
10-J -- Field Logbook Entry -- Sampling
10-K -- Sample Tag
10-L -- Sample Seal
10-M -- Sample Holding Time

Suggested Teaching Outline

Lecture: Introduction to Physical Sampling	15 minutes
Lecture: Policy Considerations in Sampling	15 minutes
Demonstration: Sampling Equipment	10 minutes
Lecture: Technical Considerations in Sampling	15 minutes
Discussion: Common Sampling Errors	10 minutes
BREAK	15 minutes
Lecture: Quality Assurance/Quality Control	20 minutes
Lecture: Sample Documentation/Chain of Custody	10 minutes
Lecture/Demonstration: Sample Management in the Field	10 minutes

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

LECTURE (15 min.)

INTRODUCTION TO PHYSICAL SAMPLING

Introduce yourself, including your background, and EPA experience.

By physical samples we mean actual samples of soil, water, air, waste streams, or other materials.

For the next several hours, we will discuss general principles for the collection and management of samples that may become evidence for an enforcement action.

Many of the principles we will discuss also apply to other field sampling activities as well as to measurements taken in the field in association with sampling, such as measurements of wind and other environmental conditions.

Trainees are likely to vary widely in their experience with sampling and the extent to which it is part of their jobs. This discussion is intended to tell the instructor more about the group and to show each trainee how this session relates to his or her job.

Role in Sampling

What responsibilities does each trainee have regarding sampling (show of hands)?

- Planning and designing a sampling strategy
- Arranging for equipment
- Preparing QA/QC plan
- Collecting samples in the field
- Documenting samples
- Maintaining chain of custody
- Preserving samples
- Packing samples for transport
- Arranging transport or shipping
- Communicating with the laboratory
- Interpreting lab results
- Other - specify.

INSTRUCTOR NOTES	SUGGESTED CONTENT

Trainees are likely to vary widely in their experience with sampling and the extent to which it is part of the their job. This discussion is intended to show each trainee how this session relates to his or her duties.

Overhead 10-A
Topic Summary

Purpose of Session

This session is not designed to teach you how to sample. Rather, the intent of this session is to provide you with a basic understanding of the principles and procedures involved in sampling for evidence purposes.

This understanding will be a direct aid to those of you who do take physical samples as part of your inspection work. You will, of course, receive more specialized training in sampling techniques as part of the program-specific classroom and on-the-job training.

For those of you who do not expect to personally take samples, but who may ask for sampling support from others (such as the Environmental Services Division or a contractor), knowledge of what goes into planning for and conducting a quality sampling effort will help you:

- Communicate sampling needs effectively, particularly with regard to establishing sampling objectives and data quality requirements; and
- Make realistic projections of the costs and time required for carrying out sampling and obtaining results.

During the remainder of this session, we will cover these topics:

- Policy considerations in sampling;
- Technical considerations in sampling;
- Common sampling errors;
- Quality assurance and quality control;
- Sample documentation and chain of custody; and
- Sample management in the field.

In the next session we will discuss laboratory analysis.

INSTRUCTOR NOTES	SUGGESTED CONTENT
LECTURE (15 min.)	POLICY CONSIDERATIONS IN SAMPLING

Samples as Evidence

The physical samples taken during a compliance inspection or investigation are often the key evidence substantiating a violation (or demonstrating that a facility is in compliance).

Depending on the regulation involved, samples may be needed to show:

- That a particular regulation applied to the site or facility (e.g., that a drum contained PCBs and therefore should have had a label)
- That a permit standard has been exceeded (e.g., that a wastestream has a higher concentration of pollutants than allowed by the permit)
- The extent of a contamination problem (e.g., that contamination has seeped from the soil under a leaking tank to the ground water)

In order for them to be readily accepted as evidence in court, samples must be of known quality, collected following sound technical procedures, and representative of conditions at the location where they were collected.

Further, the Agency must be able to show that a sample offered in evidence was in custody from time of collection until trial -- that is, that only authorized persons had access to the sample. Each individual who had access must be able to be identified.

Determining When to Sample

In planning and carrying out sampling and field measurement activities, many factors must be considered. In this part of the session, we will discuss key aspects of the sampling process.

Program-specific guidance in each regulatory program provides basic direction on when to sample at a facility or site.

This guidance usually includes Standard Operating Procedures (SOPs) for how samples should be collected, covering such topics as equipment to use, size of samples, locations from which the samples should be drawn, assuring representativeness, and other technical factors. Deviations from SOPs should be avoided if possible. If such deviations are necessary, they should be documented carefully.

Program guidance serves as the starting point for establishing and meeting the sampling objectives for a particular inspection.

Overhead 10-B
General Guidelines for Sampling

While each program has its own specific requirements, the general principles which follow should guide sampling efforts:

- Take a sample whenever one is needed to prove a violation.

  For example:

  -- To show that a release should have been reported to EPA under CERCLA, there must be proof that a substance subject to CERCLA was involved.

  -- To show that a transformer should have borne a PCB label, there must be proof that it actually contains PCBs at the regulated concentration.

  -- To show that an industrial discharger is exceeding the permit limit for a parameter, there must be proof that the discharge actually contains the constituent above the permitted limit.

- Sample only when there is reason to suspect a substance is present. Your time and your ability to transport samples is limited, and analysis is costly.

  For example: Unless there is reason to believe that drums contain hazardous waste, they would not usually be sampled.

- Attempt to verify the presence of a substance by a means in addition to (or other than, in some situations) a sample.

  Examples of other means of verification are:

  -- A company's self-monitoring reports show levels in excess of the permit limit for a given constituent or constituents.

  -- A nameplate on a transformer states that it is a PCB transformer.

  -- A facility employee states that waste oil is placed in the indicated drums.

Ideally, every potential violation observed by the inspector should be fully documented, including collection of physical samples where appropriate. In reality, time and logistical constraints may make this impossible, particularly if many potentially violative conditions are observed.

As a guideline for these situations, violations which pose the greatest threat to human health and the environment should receive the highest priority. Familiarity with annual program operating guidance and guidance documents that indicate the seriousness of various types of violations, such as the enforcement response policy, will aid in making these decisions.

DEMONSTRATION
(10 min.)

SAMPLING EQUIPMENT

The purpose of this section is to give inspectors a feel for how sampling is performed by showing and describing the use of typical sampling equipment.

If you have brought actual sampling equipment with you, briefly describe what each is used for.

Briefly describe the use of various types of typical sampling equipment.

INSTRUCTOR NOTES	SUGGESTED CONTENT
If sampling equipment cannot be brought to the classroom, use the slides you have selected from among the ones provided to discuss various types of sampling equipment. See the list of slides in Attachment 10-1.	

LECTURE (15 min.)

TECHNICAL CONSIDERATIONS IN SAMPLING

Assuring Data Quality

EPA Order 5360.1 requires that all data generated or used by EPA must be of known, defensible, and verifiable quality. Quality assurance is an integral part of all sampling activities.

Frequently, the procedure that yields the highest precision and accuracy is also the most expensive and time consuming. You must weigh the objectives of the inspection against these factors to select a sampling plan that will provide data of required quality within the resources specified for a given inspection.

As we will discuss in more detail later, a principal way in which the Agency implements this order is by requiring a quality assurance plan for every field sampling activity.

The technical considerations involved in sampling that we will discuss now are part of the thought process that goes into planning for the sampling effort and ultimately into developing and carrying out the quality assurance plan.

Standard Operating Procedures (SOPs)

As mentioned earlier, over the years most programs have developed a series of SOPs covering sampling in a variety of environmental media; some SOPs are even contained in regulations.

SOPs should be followed carefully. Deviation from a SOP not only weakens EPA's case, it can also undermine the integrity of the SOP itself.

SOPs are, of course, tailored to meet the specific needs of a particular situation.

If a deviation from a SOP is unavoidable, it is essential to document fully what was done and why. Failure to follow a SOP is not fatal to a potential enforcement action, but it is essential that enforcement officials know about any flaws that might affect the case.

Representative Sampling Points

A "representative" sample is equivalent to the total population in composition, and physical and chemical properties.

Selecting a sample that is truly representative of the media or material being sampled provides the strongest foundation for demonstrating compliance or that a violation exists.

For many types of samples and locations, there are SOPs which detail where sampling sites should be selected. These SOPs are the first line of guidance on representative sampling.

Sampling objectives should determine how and where samples should be collected. Representative sampling plans are designed to reflect specific conditions; representative does not necessarily mean "random." Sampling plans can be designed to reflect likely violations, normal operating conditions, maximum normal operating conditions, or average conditions at a site or facility.

The key is that the design of the representative sampling plan be clearly documented.

Solicit class discussion about what kinds of variations need to be accommodated in developing a representative sample. Mention the items in the Suggested Content column if they are not brought up during the discussion.

What factors are used to define a representative sample?

- Differences in operating conditions (such as seasonal or off-peak conditions; normal operating conditions would be those maintained over time with little variation).
- Differences in waste type and contaminants (materials in drums, soils, lagoons).

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

- Differences in statistical conditions that affect concentrations of contaminants (such as changes in manufacturing schedule, peak and off-peak production, different wastes generated at different times depending on manufacturing cycle).

- Differences that might result in variability over time include:

Overhead 10-C
Representative Sampling Factors

-- Process changes
-- Schedule changes
-- Manufacturing changes
-- Raw material changes
-- Management practice changes
-- System aberrations
-- Seasonal changes

- Spatial variability (in both vertical and horizontal directions, such as uneven dispersion from a discharge point, settling of particles on obstructions, different "weights" of the waste constituents moving at different speeds).

Solicit class discussion on how they determine the number of samples to be drawn.

Determining Number of Samples

A variety of factors are considered when deciding how many samples should be collected. They include:

- The variability of the waste and the degree of certainty desired to identify the contaminants in the waste.

- Practical limitations on time and how many samples can be safely collected, stored, packaged, and shipped given the resources available.

- Legal considerations, such as the nature of the regulatory requirement and the degree to which challenge about sampling-related evidence is anticipated.

- Representativeness considerations, such as differences in operating or temporal conditions or the need to balance 7-day, 30-day, or 1-year limitations against what is practical to do.

- Cost considerations, both in time and resources.

Sample Volume

Sample size should be sufficient to do all necessary analysis plus an additional amount to allow for performance of quality control steps.

Volume should be kept to a minimum, particularly if sampling is of hazardous or toxic material. Remember that disposal of any "leftovers" is under RCRA and/or other regulations.

Program-specific guidance usually specifies the volume of sample needed.

Consult with laboratory personnel for additional guidance; they should also inform you if specific types of quality control samples are needed from the inspection as a check on laboratory procedures.

Preventing Cross-Contamination

Sampling procedures are generally designed to prevent cross-contamination.

However, since some contaminants can now be detected at the trace parts per billion or even trillion level, minuscule amounts in a sample due to cross-contamination can ruin the validity of samples.

Extra steps that can be taken to help prevent cross-contamination include:

- Proceed from the least contaminated area progressively to the most contaminated area.

- Wear a new pair of disposable gloves at each new sampling location.

- Place samples suspected of being highly contaminated in separate plastic bags.

- Use different teams to collect ambient samples and source samples, if possible.

- Have one person do all the sample collection and the other take all the notes, fill out tags, etc.

Special Considerations for Split Samples

Split samples are samples that have been divided into two portions for analysis by separate laboratories.

In some cases, facility officials will request splits of all samples that are collected during an inspection. They have the right to splits under some EPA statutes.

Address this issue during the opening conference. Reach agreement over the logistics of split samples, especially over who will supply the additional collection equipment and containers.

There are risks involved with split samples. They include: non-representative samples, cross-contamination, and sample destruction.

Equipment Decontamination and Waste Disposal

Decontamination of equipment and sampling devices in the field may produce a rinsate that is subject to RCRA. Contaminated sampling devices and protective clothing may also be subject to disposal regulations.

Generally, EPA inspectors should properly package contaminated equipment and clothing and take it back to the EPA Regional Office (or laboratory) for disposal in accordance with regulations.

Some laboratories are now requesting that EPA inspectors arrange with the facility, before sampling, to return excess samples to the site for disposal. Sometimes a laboratory will refuse to do an analysis because it has no way to dispose of the material.

INSTRUCTOR NOTES	SUGGESTED CONTENT
DISCUSSION (15 min.)	**COMMON SAMPLING ERRORS**
Ask the class to suggest sampling errors that could affect sample validity, integrity, and/or value as evidence. As suggestions are made, ask them to describe what they think the impact of an error would be. Use the list in the Suggested Content column of common sampling errors to point out items if not raised by the class. **Overhead 10-D Common Sampling Errors**	The most common errors related to sampling are: • Failure to calibrate instruments, (such as the pH meter, Do meter, etc.) • Lack of maintenance on equipment • Forgetting equipment or supplies • Misreading instruments • Miscalculations • Mislabeling • Transportation of data in the field logbook • Poor field notes • Sample loss or leakage during shipping and transport
BREAK (15 min.)	**TAKE A BREAK**
LECTURE (20 min.)	**QUALITY ASSURANCE/QUALITY CONTROL**
	As we mentioned earlier, planning for quality assurance and quality control is one way to integrate the many policy and technical factors involved in a quality sampling effort. Quality assurance/Quality control (QA/QC) is part of every field sampling and laboratory analysis activity. While we will focus on the inspector's role in QA/QC, it should be understood that it is also linked to what happens in the laboratory.

- Quality Control (QC)

  Quality control is a series of methods built in to be sure that the data collected are the data that are desired.

  It includes all of the technical controls used, such as sampling and analytical methods; use of blanks and replicate samples; inclusion of performance or standard samples; and standard curves and statistics.

- Quality Assurance (QA)

  Quality assurance refers to the procedures used by management to assure that quality control plans are what are required and that the plans are being followed.

  QA is essentially an overview and monitoring function. It includes establishing data quality objectives, instituting procedures for approving planning documents in advance of field data collection, and using audits to identify quality control problems.

- Quality Control Samples

  As part of the Region's quality assurance program, inspectors may be asked to take an additional volume of a sample or perform special steps with regard to a sample as a check on the sampling itself and/or on the laboratory.

Overhead 10-E Quality Control/Quality Assurance Samples

Types of samples used for QA/QC purposes include:

- Replicate Samples. These are separate samples taken from the same source at the same time.
- Split Samples. This is a sample that has been divided into two containers for analysis by separate laboratories.
- Spiked Sample. This is a sample to which a known quantity of some substance has been added.
- Preservative Blanks. This is a sample of distilled water to which a known quantity of a preservative has been added.

What do QA and QC seek to control? They seek to control data quality. What are the basic elements of data quality that QA and QC are seeking?

- Precision -- the reproductibility of the data.
- Accuracy -- the closeness of a measured value to the true value.
- Representativeness -- the extent to which the data characterize the environmental condition of the site or operation in question.
- Comparability -- the equivalency of the data sets.
- Completeness -- the measurement of the confidence with which the data resulting from a collection activity meets the sampling objectives.

Quality Assurance Project Plan (QAPP)

Agency policy mandates that every inspection involving sampling must have a quality assurance plan.

Use the name that is employed in your region. Substitute that term for QAPP throughout the session.

In several Regions and programs, this plan is called the Quality Assurance Project Plan (QAPP). While it may have another name in other offices, a comparable document must exist for every sampling effort. In this Region, it is called a ______.

Generally, the QAPP is prepared in advance of the inspection. However, if a decision to sample is made while the inspector is in the field, the inspector should record the information that would be in a QAPP in his or her field logbook.

The purpose of preparing a QAPP is to assure that the sampling plan reflects a careful thinking through of sampling objectives and what must be done to be sure they are met.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

Overhead 10-F
Quality Assurance Project Plan

In many cases, the QAPP will be rather short, referencing the SOPs for the inspection type. Such routine QAPPs still will usually require some modification to the particular situation to which the SOPs are being applied.

For non-routine situations, a more complex and lengthy SOP may be necessary.

Modify this list of elements to include the elements of your Region's QAPP or equivalent.

Elements of a Quality Assurance Plan

While the name and format of a quality assurance plan varies by Region and office, the content will generally include roughly the same items. Of course, the SOPs may have already addressed some of them and so can be incorporated by reference. Some of the information may be in a document other than a QAPP plan or equivalent, but are nonetheless part of the thought process for sampling.

Make a handout that lists the elements or distribute your Region's QAPP format, if one exists.

We will go through some of the key items here briefly to give you a sense of what goes into quality assurance planning.

- Project Description and Site Location. The what, where, and why. Includes history and justification; physical aspects defining project area, space, environmental concerns.

- Project Measurement Objectives. Information requirements of the project. Defined by regulation or specific investigation needs.

- Sample Rationale and Network Design. Describes the process used to select specific sampling points. The rationale is site specific, using applied statistics, regulatory requirements, enforcement needs, and common sense.

- Analyses Rationale. Initiates the paper trail of physical accountability of the project.

  -- Data Quality Objectives. Lists what elements, compounds, classes of compounds, and/or physical data are needed; methods selected to get the data; and usually the detection limit. Helps to define precision and accuracy for the project and/or specified analyses.

  -- Sample Procedures to be Used.

  -- Sample Custody and Documentation. Core of the paper trail; should be sufficient to allow the sampler to testify years later.

  -- Calibration Procedures and Frequency. Generally for physical measurements in the field and laboratory, usually addressed through SOPs which define standard calibration procedures.

  -- Preventive Maintenance. Generally concerned with instruments; usually addressed by SOPs listing manufacturer's operational and maintenance recommendations.

  -- Laboratory Data Reduction/QA Review. Planner can designate here what degree of QA effort a project needs.

  -- System and Performance Audits. May be a request for an audit by the project planner and/or as part of the office's overall quality assurance program.

  -- QA Report to Management. If there was an audit, the results. If corrective action was needed, what steps were taken to solve the problem.

  -- Corrective Action. Based on professional judgment, the sampler may make changes to the plan while in the field as long as they are justifiable; all changes must be documented.

INSTRUCTOR NOTES	SUGGESTED CONTENT

-- Sample Alterations. If changes in the actual measuring or analyzing protocols had to occur in the field or laboratory, they must be justifiable and documented.

-- Safety Plan. Technically a part of the QA plan, but usually cites an already approved plan. Deviations from the plan must be approved by a Safety Officer.

Overhead 10-G
Changes to the QAPP

- Modifying a Quality Assurance Plan

When faced with an unexpected or unanticipated situation, the inspector may need to modify the QAPP in the field.

The plan cannot be modified so much, though, as to compromise the original sampling objectives. Questions to ask are:

-- Can the original objectives still be met?

-- Can the sampling be satisfactorily done with the existing equipment?

-- Is it safe to sample?

All changes must be documented, including their rationale.

LECTURE (10 min.)

SAMPLE DOCUMENTATION/CHAIN OF CUSTODY

In order for the results of sampling to be usable as evidence, the Agency must be able to demonstrate that the samples were collected and analyzed in a technically sound manner; explain the precision, accuracy, and representativeness of the sample; and show that the sample was in custody from the time of collection until trial, such that tampering was not possible.

Documentation of Precision and Accuracy

- Field Measurements and Sampling Process

  Procedures used for collecting and handling samples should be written in the field logbook.

  The procedures cited or described should be detailed enough that it would be possible to determine:

  -- Exact sample collection location
  -- Types of sample containers used
  -- Sample container preparation process
  -- Sample collection process
  -- Sample preservation and handling
  -- Calibration and maintenance of equipment

  For the actual collection procedures, a citation to the appropriate SOP that was followed will generally be adequate. Any deviation from the SOP must, however, be fully explained and documented.

- Laboratory Analytical Methodology

  Similarly, the laboratory methods used to analyze the sample must be documented. They would include such items as data analytic methods employed; receiving and handling procedures; reduction and reporting procedures; equipment/instrument calibration; and all other records pertaining to the sample including conclusions derived and reliability of the data.

Chain of Custody Documentation

In order to have the results of a sample accepted as evidence, we must be able to show that the sample is what we say it is: that it came from a particular location at a particular time. The sample's unique identifying number along with the other information in field notes are the principal ways that this can be established.

We also must be able to show that the sample has not been tampered with or contaminated during collection, transit, storage, or analysis. To do this, we show through written "chain of custody" records that access to the sample was controlled and that everyone who had handled the sample can be identified (and if needed, could testify).

An accurate record must be maintained to trace each sample from the moment of collection through its introduction into evidence.

Overhead 10-H
Evidence is in Custody If...

Elements of Custody

A sample is in "custody" if:

- It is in one's physical possession.
- It is in one's view.
- It was in one's possession and it was secured so it couldn't be tampered with.
- It is kept in a secured area with access restricted to authorized personnel only.

Overhead 10-I
Chain of Custody Procedures

The concept of custody requires the maintenance of several procedures including:

- Establishing custody, such as by sealing the sample with an official seal.
- Preparing sample documentation describing collection, shipment, storage of the sample.
- Coordinating sample and documentation to ensure that sample number, date, inspector's initials appear on all forms.
- Ensuring custody during transit through proper documentation.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

Chain of Custody Record

The forms and procedures used for chain of custody vary somewhat depending on the office and program.

The custody record includes information in field logbooks, sample tags, field data sheets, and chain of custody records. Some offices and programs have developed forms and tags that combine information about sample collection conditions and analytic requirements with the custody record.

The examples we will show you today are in actual use. While the specific procedures may be a bit different in your office, their intent will be the same.

There are several important points to keep in mind regarding what chain of custody records must accomplish. They must be able to:

- Link each specific sample to a specific location, date, time, and sample taker.
- Explain the conditions surrounding the collection of sample.
- Show what procedures were used to collect the sample.
- Show that the sample was in custody at all times and identify all people who had access to the sample.

Field Logbook Entry

The inspector's entry in the field logbook is the principal reference for the sample. Each entry should include:

Overhead 10-J
Field Logbook Entry --
Sampling

- Sample identification number
- Unique identifying remarks (if any)
- Date and time of collection
- Specific location of collection

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

- Collection method
- Rationale for sampling
- Description of any deviations from standard protocols
- Indication of split samples (if applicable)

At this point, using the overheads and/or handouts of the Region's sample tags, seals, and chain of custody records, briefly explain the Region's chain of custody procedures.

Overhead 10-K
Sample Tag

Overhead 10-L
Sample Seal

Your textbook has examples of sample tags, seals, and chain of custody records in Chapter 13D. I am now distributing (going to show you) some of the forms we use in our Region for chain of custody.

LECTURE/DEMONSTRATION (10 min.)

SAMPLE MANAGEMENT IN THE FIELD

Overhead 10-M
Sample Holding Time

Samples should always be handled in accordance with safety procedures that relate to the specific substance. Two other considerations are:

- Sampling preservation. Most analyses require that a chemical preservative be added to the sample immediately upon its collection. Consult program- and media-specific guidance for sample preservation requirements, or ask laboratory personnel.
- Sample holding time. Prompt analysis is the best way to ensure that no error occurs due to deterioration of the sample. Again, sample holding times are specified in program- and media-specific guidance.

Arranging for analytic support in advance of the inspection helps avoid delays that could affect the quality of the analysis.

INSTRUCTOR NOTES	SUGGESTED CONTENT
The purpose of this portion of the session is to explain the general DOT shipping requirements for hazardous samples and to demonstrate how to properly pack a hazardous sample for shipment.	**Packing and Shipping Samples** Because of the potential hazards (and time delays) associated with shipping samples, the best method is for the inspector to deliver them personally. When this is not feasible, samples are shipped by common carrier. DOT Hazard Classification It is the inspector's responsibility to pack and ship samples in accordance with DOT requirements for the particular DOT hazard class. The inspector can be held liable if proper procedures were not followed and a sample leaks. The inspector determines the appropriate hazard classification, using professional judgment. Each EPA office has designated an individual who is responsible for compliance with the DOT regulations. Inspectors can consult with this person when unsure of what to do with a given sample.
Insert name of Regional contact here	In this Region, the person who can be consulted on DOT regulations regarding samples is:
	As a general rule: When the hazard class is unknown and the concentration of contaminant in the sample is likely to be high, the sample should be shipped as hazardous. "Ambient" samples would not ordinarily be subject to hazardous materials shipment requirements because the contaminant concentrations are low. Generally, samples of unknown hazard are shipped as "flammable liquid."

INSTRUCTOR NOTES	SUGGESTED CONTENT
	Advance Planning Sample shipping needs should be identified and planned for in advance of the inspection as part of the inspection planning process. Be sure to obtain any needed sample shipping containers, completed and signed forms, and hazard labels.
Using the appropriate containers, packing materials, and hazard labels, demonstrate how hazardous samples are packed for shipping by common carrier. Explain, as appropriate, how a different hazard class would require different procedures. Refer trainees to the text for specific information on hazard classes. Ask the class to remember back to their sampling planning exercise. How many thought ahead to bringing shipping materials and labels?	Packing a Hazardous Sample Explain packaging steps as they are being performed.

ATTACHMENT 10-1
EQUIPMENT SLIDES

SLIDE NUMBER	DESCRIPTION OF SLIDE
1	Level A protective clothing
2	Level B protective clothing
3	Level C protective clothing
4	Level D protective clothing
5	Misc. Equipment (boots, rope, cold weather gear, gloves, etc.)
6	Cooler for carrying/shipping samples
7	Cooler with bottles and sample tags
8	Cooler with custody tag and official seal
9	Labels, official seal, chain of custody tag
10	Sample containers
11	Oxygen meter for DO and conductivity bridge
12	pH meter
13	Automatic sampler for water samples
14	Sediment sampling equipment
15	Van Dorn sampler and water sampling tubes
16	EPA van
17	EPA trailer
18	EPA boat
19	Automatic sampler in insulated box
20	Flow meters
21	Sample preservatives
22	Teflon bailer
23	Misc. field equipment (map, compass, notebook, camera, film, flashlight, etc.)
24	Flame retardent protective clothing
25	Records
26	Vacuum filter
27	Sample container with packing material
28	Water sampling equipment

SESSION 10: PHYSICAL SAMPLING

- Policy Considerations in Sampling
- Technical Considerations in Sampling
- Common Sampling Errors
- Quality Assurance/Quality Control
- Sample Documentation/Chain of Custody
- Sample Management in the Field

Text: Chapter 13

GENERAL GUIDELINES FOR SAMPLING

- Take a sample when one is needed to prove a violation
- Sample only when there is reason to suspect the substance is present
- Always attempt to verify the presence of the substance by a means in addition to sampling

REPRESENTATIVE SAMPLING FACTORS

- Operating conditions
- Types of waste
- Statistical considerations
- Temporal considerations
- Spatial considerations

COMMON SAMPLING ERRORS

- Calibration
- Maintenance
- Forget
- Sample loss
- Misreading
- Miscalculations
- Data Transposition
- Mislabelling
- Poor field notes

QUALITY CONTROL/QUALITY ASSURANCE SAMPLES

- Replicate
- Split
- Spiked
- Preservative Blanks

QUALITY ASSURANCE PROJECT PLAN
(QAPP)

- Must be prepared for every sampling inspection
- Two types:
    - Routine
    - Non-routine

CHANGES TO THE QAPP

- Can the original objectives still be met?
- Can the sampling still be done with the existing equipment?
- Is it safe to sample?

Evidence is in custody if...

- It is in actual possession, control, and presence of the inspector
- It is in his or her view
- It is in a place of storage where only the inspector has access

OR

- It is in a place of storage where only the inspector and identified others have access

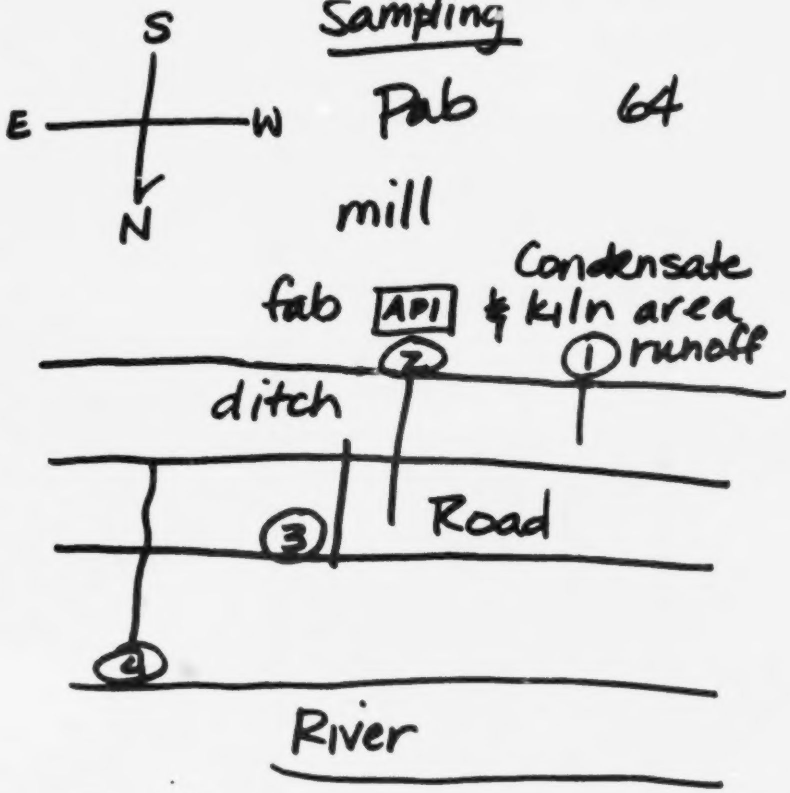
CHAIN-OF-CUSTODY PROCEDURES

1. Establishing custody
2. Preparing documentation
3. Coordinating sample and documentation
4. Ensuring custody during transit

FIELD LOGBOOK ENTRY -- SAMPLING

Sampling

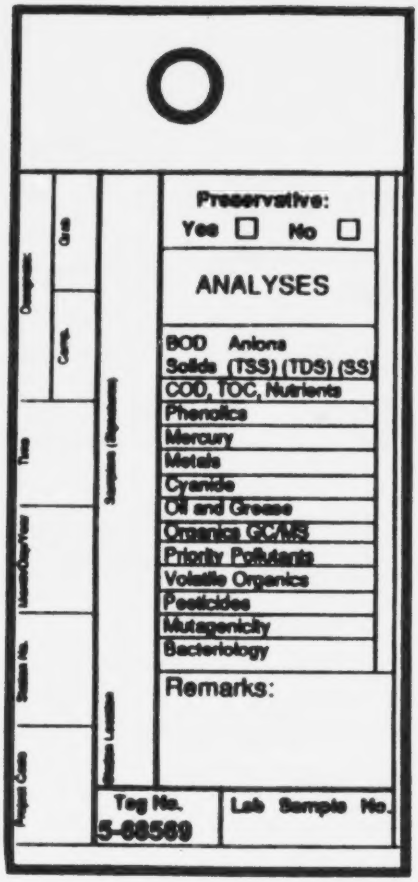
Fab 64


S
E
W
N
mill
Condensate
fab
API
& kiln area
runoff
②
①
ditch
Road
③
④
River

See field data sheet for sample info.

	①	②	③	④	⑤
Temp	84°F	60°F	64°F	58°F	Trans Blank
pH	10.7	7.2	9.3	7.3	
flow	23gpm	0.25	22.5	22.5	
t	1:00	1:15	1:25	1:45	1:30
	88244640	88244641	88244642	88244643	88244644

Example of Sample Tag



Project Code

Station No.

Month/Day/Year

Time

Designate:

Comp.

Grab

Samplers (Signature)

Station Location

Preservative:
Yes ☐ No ☐

ANALYSES

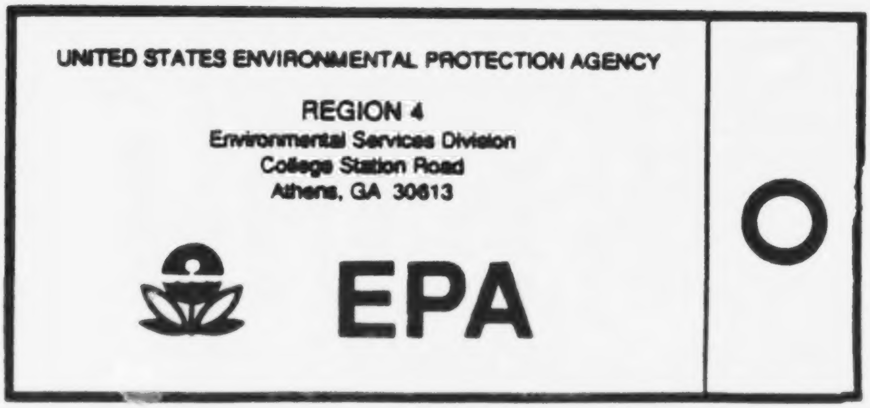
BOD Anions
Solids (TSS) (TDS) (SS)
COD, TOC, Nutrients
Phenolics
Mercury
Metals
Cyanide
Oil and Grease
Organics GC/MS
Priority Pollutants
Volatile Organics
Pesticides
Mutagenicity
Bacteriology

Remarks:

Tag No.
5-68569

Lab Sample No.

FRONT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

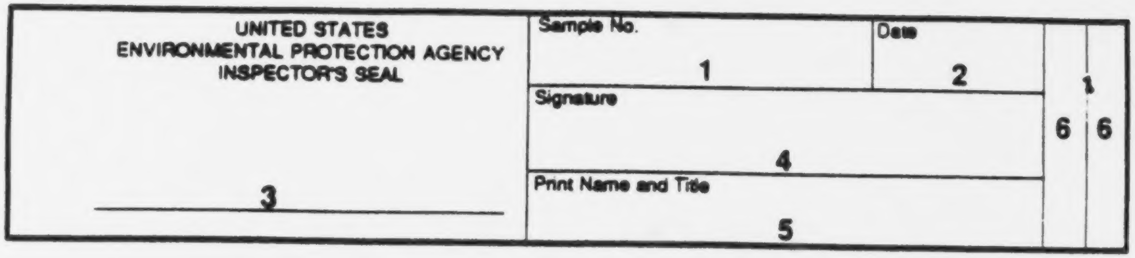
REGION 4
Environmental Services Division
College Station Road
Athens, GA 30613

EPA

BACK

36

Example of Sample Seal


UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
INSPECTOR'S SEAL
3
Sample No.
1
Date
2
Signature
4
Print Name and Title
5
1
6
6

(1) Insert sample number

(2) Insert date sealed

(3) Print location of collector's station

(4) Signature of persons sealing the sample

(5) Print name (same as signature) and title of sealer

(6) When a seal is broken for any purpose, initial here and enter the date-broken. Submit broken seal with sample records

SAMPLE HOLDING TIME

Prompt analysis is **the** most positive assurance against error from sample deterioration

SESSION 11
TOPIC: LABORATORY ANALYSIS
INSTRUCTOR'S OVERVIEW

Time: 45 minutes

NOTE: It is highly recommended that trainees be given a tour of the Regional lab as part of the course whenever feasible. It is helpful for the trainees to meet the people who receive and analyze their samples and to see how some of the analysis is conducted.

Such a lab tour would substitute for this classroom session.

Purpose

To provide a basic understanding of the functions of a laboratory and the relationship between the laboratory and the inspector.

Key Points

Inspectors should be aware of the capabilities and limitations of the laboratory.

Laboratory personnel can be a valuable source of technical expertise.

Advance planning for laboratory work helps assure prompt analysis of samples.

Advance Preparation

Text reference Chapter 18.

Prepare a brief, non-technical presentation on the capabilities of the EPA lab in your Region, including key equipment and analyses that can be performed.

Prepare a handout showing formats of analytical reports from your laboratory and be prepared to explain how to read them.

Equipment Needed

Overhead Projector
Calculator

List of Visuals

11-A -- Topic Summary

List of Handouts

Regional laboratory analytical reports

Suggested Teaching Outline

Lecture: Laboratory Operations	15 minutes
Lecture/Discussion: Laboratory Capabilities	15 minutes
Discussion: Interpreting Analytical Results	15 minutes

INSTRUCTOR NOTES

SUGGESTED CONTENT

LECTURE (15 min.)

LABORATORY OPERATIONS

The purpose of this session is to give a brief overview of the laboratory and how it functions, and particularly why the inspector should consult with laboratory personnel on technical matters.

Overhead 11-A
Topic Summary

Introduce yourself, your experience in EPA, and your role in the course.

An inspection is not complete until the samples that were taken have been analyzed and the results have been reported and interpreted. Often, it cannot be determined whether a suspected violation actually occurred until the results of analysis are in.

In this session, we are going to give you a brief overview of what happens in the laboratory and some of the factors involved in performing sample analysis. We will then discuss what to consider when interpreting the results you receive from the lab.

In the short time we have today, I can only provide you with some highlights of how the EPA laboratories function (contractor laboratories carry out similar functions). I know that some of you may not take samples, but it is important for you to understand sample analysis because virtually everyone will at one time or another need to at least review analytical results or will request others to perform sample analysis.

I hope that when I am through you will have an appreciation for what the lab does and why it is important to consult with the laboratory on technical questions related to sampling and sample analysis.

EPA's laboratories carry out many functions related to all environmental monitoring projects, including compliance monitoring. Sample analysis involves several activities:

- Preparing the samples
- Conducting specific analyses
- Calculating and verifying the data
- Preparing reports.

INSTRUCTOR NOTES **SUGGESTED CONTENT**

The amount of time and complexity of a single analysis generally depends on the number of answers that can be gleaned from it.

Other related functions that the lab performs include:

- Maintaining quality assurance and quality control
- Maintaining effective chain of custody
- Storing samples
- Disposing of samples and waste
- Keeping up with maintenance requirements on equipment and supplies.

Advance Scheduling

EPA labs respond to demands from multiple EPA programs. The lab has limited time, personnel, and equipment, so advance scheduling is essential to get samples analyzed promptly.

Explain your Region's procedures for scheduling analytical work, noting in particular the normal lead time required. Explain what can be done in the event that there is an emergency need for sample analysis.

Explain your Region's procedures for scheduling analytical work.

Relationship with Laboratory Personnel

Lab personnel are technical experts. They can assist inspectors on such matters as:

- Developing sample plans
- Determining the types of samples that will provide the most useful data
- Interpreting analytical data.

Sample Analysis Time and Costs

When planning an inspection, inspectors should factor in both the costs of analyzing samples and the time it will take to receive results.

Cost estimates will help budget the inspection, and may result in changes in the number of samples collected or the scope of the inspection.

Understanding how long it will take to get results will help the inspector make more realistic projections of when results can be expected from the lab.

Exhibit 18-1 in your text (pages 18-10 through 18-11) show average times and fees for analyzing typical samples. These can help in making projections when no other information is available.

Data Quality Objectives

The lab is responsible for providing data at the level of quality specified in the data quality objectives of the QAPP.

The program office, in conjunction with the lab, will select the analytical methods, instruments, parameter detection limits, and other analytic requirements which are capable of producing data that will meet the quality required by the data quality objectives.

Chain of Custody in the Lab

Each EPA laboratory has procedures to assure that the chain of custody that was established in the field is continued in the lab. Generally, this includes a new (or continued) sample numbering system for samples in the laboratory and controlled access to the samples, including logbooks showing who has had custody of the samples.

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
LECTURE/DISCUSSION (15 min.)	**LABORATORY CAPABILITIES**
In this portion, present a brief, non-technical discussion of some of the key types of analyses that can be performed by the laboratory and the kinds of equipment used.	Explain some of the key equipment and analyses that can be performed at the EPA laboratory.
Provide about 5 minutes at the end for inspectors to ask specific questions about the laboratory or laboratory procedures.	Solicit questions from the group related to sample analysis.
DISCUSSION (15 min.)	**INTERPRETING ANALYTICAL RESULTS**
	Inspectors should be able to read and interpret analytical results and to incorporate them meaningfully into an inspector report.
Distribute the handout you have prepared showing one or more formats for reporting analytical results from the Regional lab. Explain how to read them.	Each laboratory has its own format(s) for reporting analytical results. I am distributing some sample reports from our lab. Explain how to read the reports. **Data Evaluation** The data from sample analysis must be evaluated before any conclusions can be drawn. This is usually done through statistical analysis. There are a variety of statistical methods that can be used, but inspectors are cautioned that each will produce different and sometimes contradictory results.

INSTRUCTOR NOTES	SUGGESTED CONTENT
Use the example on pages 18-14 through 18-15 of the text to illustrate how different methods result in different conclusions. Give the trainees about five minutes to read the text, and then walk through the example, answering questions as needed.	Your text on pages 18-14 through 18-15 contains a good illustration of what happens with different types of statistical analysis. Read it for a few minutes, and then we'll walk through it. Walk through the example, answering questions as needed. Remember, decide what limits or standards are going to be applied before evaluating data.

SESSION 11: LABORATORY ANALYSIS

- Laboratory Operations
- Laboratory Capabilities
- Interpreting Analytical Results

Text: Chapter 18

2

SESSION 12
TOPIC: RECORDS INSPECTION
INSTRUCTOR'S OVERVIEW

Time: 90 minutes

Purpose

Present key elements of reviewing records

Key Points

Ability to follow the paper trail is a key inspector skill.

Advance Preparation

Text reference Chapter 12.

Prepare problems as handouts if to be discussed by small groups.

Equipment

Overhead projector

List of Visuals

12-A -- Topic Summary
12-B -- Problem A
12-C -- Problem B
12-D -- Problem C
12-E -- Problem D
12-F -- Overview of Records Sampling Steps
12-G -- Sampling Techniques

List of Handouts

12-1 -- Sample Manifests
12-2 -- Sampling Strategy Problems

Suggested Teaching Outline

Lecture: Conduct of Records Reviews	20 minutes
Exercise/Discussion: Records Review Problems	30 minutes
Lecture: Records Sampling Techniques	20 minutes
Exercise: Sampling Strategy Problems	20 minutes

INSTRUCTOR NOTES	SUGGESTED CONTENT
Introduction **Overhead 12-A Topic Summary**	Introduce yourself, including your background and EPA experience. This session will cover records review -- the purposes and some techniques.
LECTURE (20 min.)	**CONDUCT OF RECORDS REVIEWS**

Purpose of Record Reviews

Inspecting records for compliance purposes is an art; these investigative skills are largely developed through experience.

Purposes of records reviews are:

- To determine whether records required by statute or regulation are being maintained
- To substantiate compliance or non-compliance

Plan what types of recourds should be reviewed before you go on-site. Types of records that might be reviewed include:

- Annual reports
- Production records
- Shipping records/manifests
- Inventory records
- Sales records (invoices, receiving records, etc.)
- Process records
- Quality control records
- Disposal records
- Labels and literature
- Permits -- State, local, and Federal

- Correspondence
- Exemptions
- Personnel records
- Self-monitoring records
- Operation and maintenance records
- Real property records

During a records review the inspector should:

- Compare current with past reports for possible discrepancies or false reports
- Check for completeness and accuracy of required records and reports
- Ascertain compliance with record retention requirements
- Compare information contained in the records with first-hand observations; compare information in computer files or printouts with other written documents.

Distribute manifests (Handout 12-1). Let group review the manifests until someone identifies the problem.

What do these records show?

If no one is able to spot the problem right away, note that RCRA allows waste haulers to hold shipments for no longer than 10 days. Dates indicate that material was held too long.

Manifest No.	Date Shipped	Date Delivered
MIO649382	1/7/87	1/29/87
MIO649386	2/11/87	3/3/87
MIO649387	2/27/87	3/12/87

It is crucial that the inspector know what records the facility is required to keep.

Documentation of Records Copied

Ability to positively identify particular records copied or taken is essential -- each inspector should use a system that enables him/her to easily verify their validity.

Each record copy should be identified with:

- Inspector's initials or code, and date.
- Unique document identification number.

Document copies obtained during the inspection should then be entered in the field logbook by a logging or coding system based on the two above elements. The logbook entry should also include:

- Reason for obtaining document
- Source of document
- Physical location of original document

EXERCISE/DISCUSSION
(30 min.)

RECORDS REVIEW PROBLEMS

Ask the group to discuss how they would approach these problems.

Deciding what records to review and how is an art. There are no right or wrong answers.

Following are some typical compliance questions an inspector might need to answer, at least in part through records review.

INSTRUCTOR NOTES	SUGGESTED CONTENT
Overhead 12-B **Problem A**	**Problem A** • A company has not submitted any reports of exceeding its discharge permit limits. Your inspection of the facility indicates poor operation and maintenance of pollution control equipment, leading you to suspect that it may have failed. You want to determine whether there were any excursions that should have been reported to EPA. What records would you look at? What would you be looking for? What evidence would you need to collect?
Overhead 12-C **Problem B**	**Problem B** • The Agency has a tip that a company has begun manufacturing and distributing a new chemical (di-benzo-horrible) before completing the required premanufacture review process (e.g., TSCA or FIFRA). What kinds of records and documents would you look for? What other evidence might there be? How would you approach an inspection to see whether a company was making a new product if the Agency had no tip?
Overhead 12-D **Problem C**	**Problem C** • A company's records regarding storage of hazardous waste are sloppy and incomplete. You can easily document the violation of recordkeeping requirements, but you suspect they are storing for much longer than the allowed period. What records might help to confirm or refute this suspicion -- by their presence or absence? What could you collect for evidence?
Overhead 12-E **Problem D**	**Problem D** • A citizen has notified the Agency that a dredging company has alledgedly disposed of dredged material into wetlands owned by the town of Clarksville. What records might help to confirm this allegation? What evidence would you need to collect?

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

LECTURE (20 min.)

RECORDS SAMPLING TECHNIQUES

When there are too many items (e.g., records, documents, individual data entries, pieces of equipment) to be reviewed, sampling techniques are used to select a portion of them that will allow reasonable conclusions about the facility's compliance to be drawn. We are focusing here on statistical methods as an auditing technique, not as a method for assuring statistical reliability.

The advantages of sampling, as against complete coverage, are: (i) sampling saves money; (ii) sampling saves labor; and (iii) sampling saves time.

Our focus in this session will be on records review, although the principles and methods can apply to selecting samples from a population of any kind.

Overhead 12-F
Overview of Records
Sampling Steps

Overview of Sampling Steps

The basic steps in drawing a sample of records are:

1. Determine objective for the records review
2. Identify total population - all relevant records
3. Select sampling method
4. Determine the sample size
5. Conduct sampling
6. Document the sampling methodology.

Each of the basic steps is discussed in more detail below.

1. Determine the objective for this particular review -- e.g., compliance with required hazardous waste training for employees.

2. Identify the total population subject to review, that is, all relevant records, people, equipment (e.g., all employees who should have received hazardous waste training). Identify whether there are groups within the population that are of particular interest (e.g., new hires, temporary employees, employees on different shifts).

3. Select the sampling method. The key point in selecting a sampling method is to think systematically.

   - If the inspector suspects a problem, the records review should focus on documenting that problem. Records should be selected that are most likely to illustrate the problem or contain the information needed to document the problem. Sampling is directed to the segments of the population where probelms or deficiencies are likely to exist. For example, the inspector may have learned during the opening conference that in the previous three months there had been a turnover of personnel responsible for maintaining air pollution control and monitoring equipment. Based on this information, the inspector might decide to focus sampling activities on those three months. This sampling method is based on the inspector's judgment and hunches.

   - If no problem is suspected or the nature of the problem is unknown, the inspector's judgment is not helpful in selecting records for review. In this case, the inspector needs to choose a method for selecting records that is most likely to detect any problems that exist. Therefore, he or she wants to look at records that represent all (or a majority) of the remainder of the materials that cannot all be reviewed.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

Overhead 12-G
Sampling Techniques

Sampling Techniques

These techniques are discussed in the manual on pages 12-10 through 12-18.

- Random Samples - Each item in the population has an equal chance of being included in the sample; items are picked without bias.

  The basic type of random sampling, simple random sampling, is obtained through a process similar to putting everyone's name on a slip of paper, and, while blindfolded, drawing only a specified number of slips (names) from the hat.

  One of the principle advantages of the simple random sample is that you may stop at any point in the selection of the sample with the assurance that the sample is as representative as possible for a sample of that size. A small sample may be drawn and, if it proves to be too small to obtain the amount of accuracy needed, it may be enlarged one item at a time until the needed amount of accuracy is reached. In other types of sampling, it is necessary to decide in advance the exact size of sample needed; and during the process of selection the sample does not become truly representative until all sample elements have been drawn.

- Systematic or Interval Sampling is a variation of simple random sampling that does not require using a table of random numbers. Every fifth, tenth, or fiftieth item is selected based on a random starting point.

  To generate a systematic or interval sample, the inspector must first decide on sample size. Divide the desired sample size (e.g., 50) into the total number of items (e.g., 500) to determine the sampling interval (e.g., 50/500 = 1/10); thus the interval will be to select every tenth item.

- Stratified Sampling involves breaking the population in subgroups or categories based on relevant characteristics. Then, the random or interval techniques are applied to these subgroups. More records can then be sampled from subgroups believed to be potential problems.

- Block Sampling is used to select groups of records. For example, instead of examining all waste sample analysis reports, select only reports produced on a given day or date of the week (e.g., all analyses performed on Wednesdays) over a period of time.

- Judgmental Sampling is frequently used when the inspector has reason to suspect that a violation or violations may occur. The inspector focuses review of records around the suspected problem.

4. Determine the Sample Size based upon the inspector's judgment, time, and resource constraints. A suggested approach for determining minimum sample size is in the manual, Chapter 12.

5. Conduct Sampling based upon the selected approach and determined sample size.

6. Document the Sampling Methodology used in the field logbook, including:

   - The population, subject, or topic under review, and why that population was selected

   - Sampling method employed and why that sampling method was used

   - Any potential bias in the sample selected

   - The sample size and reasons for selecting that sample size

   - How the sample was actually selected

   - The results of the sampling (unless physical samples that require laboratory analysis) at a period at a time.

INSTRUCTOR NOTES	SUGGESTED CONTENT
EXERCISE (20 min.)	**SAMPLING STRATEGY PROBLEMS**
This exercise is designed to stimulate discussion of various ways a large population of items can be approached based on the amount of time available and purpose of the review.	Inspectors are often confronted with more items than they can actually review or inspect in the time available. The problems I am distributing to you simulate inspections for which the use of sampling methods as an auditing approach might be useful.
Distribute Handout 12-2. You may either assign problems to small groups of trainees or discuss each problem as a group. If small group problem-solving is chosen, reconvene the class after 10 minutes and have someone from each group explain the logic of the group's approach.	We are not looking for statistical reliability here; rather, we are looking for a sampling strategy that will give us a reasonable conclusion about compliance. Points to raise if not brought out by discussion: 1. Dumpstump Inc. Are all employees in the files (e.g., part-time, new hires, day and night shift)?
If the full class is to discuss each problem, allow about 3 minutes for them to read the problem before discussing.	Are there some groups more likely to not have been trained (e.g., new hires, old employees, night shift, part-time)? No sampling method is most ideal:
Some points you may wish to raise if not brought out by the group are shown in the Suggested Content column.	Interval sampling useful as random method; block sampling not so useful but could, for example, pick all files in a letter of the alphabet.
Note: During the discussion, trainees might suggest methods other than or in addition to records inspection to investigate. This is a desired outcome; it signifies they are thinking like investigators.	Judgmental sample based on length of employment, shift, etc., could focus on more likely violations (categories selected should be able to be identified without looking at individual files or the purpose is defeated; e.g., length of employment on a separate company roster).

2. The Spewforth Company

Extensive amount of log entries:

3 samples twice a week = 6 per week
6 x 104 weeks = 624 entries

Possible sampling strategies:

Block method -- check all entries in a sample of weeks or sample of months.

Interval method -- review every nth entry.

Combine block with interval -- check every nth entry in a sample of months or weeks (e.g., all entries in second week of the month).

Judgmental -- attempt to learn more about neighbors' complaints (e.g., did they occur in a particular time of year) and focus there, or determine when production output is highest.

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HANDOUT 12-1

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1979 as amended and Act 136 … 1969

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#5111

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Form Approved OMB No 2000-0404 Expires 1-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: ABCDEFGHIJK/ Manifest Document No: 19931

2. Page 1 of

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: MI 0649382

3. Generator's Name and Mailing Address:
SMITH METAL WORKS
ANYWHERE, USA

4. Generator's Phone

B. State Generator's ID

5. Transporter 1 Company Name: Environmental movers

6. US EPA ID Number: MNOPQRSTUVW

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address:
WASTE HOLDING ING.
EVERYWHERE, USA

10. US EPA ID Number: FGHIJKLMNOPQ

G. State Facility's ID

H. Facility's Phone

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a	X HAZARDOUS WASTE SOLID	1	CM	20	YDS	F006	
b							
c							
d							

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information:
CONTAIN SOLID AND REMOVE TO TRANSPORT VEHICLE.
TRANSPORT TO DISPOSAL SITE

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, including applicable state regulations.

Printed/Typed Name: Duane M. Larkbird
Signature: Duane M Lark
Date (Month Day Year): 01 07 87

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Jim O'Rowwell
Signature: Jim Orowell
Date (Month Day Year): 01 07 87

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name
Signature
Date (Month Day Year)

19. Discrepancy Indication Space

5075

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name: RErks
Signature: Rerks
Date (Month Day Year): 01, 29, 87

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY

EPA Form 8700-22 (3-84)

12

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PR 5
Rev.

DNR

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

9 DAY OVER

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1976, as amended and Act 136, PA 1969

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, PA 1969

5149

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Form Approved OMB No 2000-0404 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: HBCDEFGHIJK

Manifest Document No.:

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
SMITH METAL WORKS
ANYWHERE, USA

A. State Manifest Document Number: MI 0649386

B. State Generator's ID:

4. Generator's Phone:

5. Transporter 1 Company Name: Environmental movers

6. US EPA ID Number: MNOPQRSTUVW

C. State Transporter's ID:

D. Transporter's Phone:

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address:
WASTE HOLDING INC.
EVERYWHERE, USA

10. US EPA ID Number: FGHIJKLMNOPQ

G. State Facility's ID:

H. Facility's Phone:

HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
X	a. Hazardous Waste Solid	1	CM	20	YD	F006	N
	b.						
	c.						
	d.						

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Contain solid and remove to transport vehicle, transport to disposal site.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, including applicable state regulations.

Printed/Typed Name: [illegible]
Signature: Terry Wright
Date Month Day Year: [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Jim. O'Rowell
Signature: Jim O'Rowell
Date Month Day Year: 02 11 87

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date Month Day Year:

19. Discrepancy Indication Space

5128

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name: REPAS
Signature:
Date Month Day Year: 030387

GENERATOR — TRANSPORTER — FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN CENTER AT 1-800-[illegible] 24 HOURS PER DAY.

EPA Form 8700-22 (3-84)

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OF NATURAL RESOURCES

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UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: ABCDEFGHIJK
Manifest Document No
2 Page 1 of 1
Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
SMITH METAL WORKS
ANYWHERE, USA

A. State Manifest Document Number: MI 0649387
B. State Generator's ID

5 Transporter 1 Company Name: Environmental movers
6 US EPA ID Number: MNOPQRSTUVW
C. State Transporter's ID
D. Transporter's Phone
7 Transporter 2 Company Name
8 US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9 Designated Facility Name and Site Address
Waste Holding Inc
Everywhere, USA
RD.
10 US EPA ID Number: EFGHIJKLMNOPQ
G. State Facility's ID
H. Facility's Phone

HM	11 US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER)	12 Containers No.	Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.	N/H
X	a. Hazardous Waste Solid	1	CM	20	YD	F006	N
	b.						
	c.						
	d.						

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information

Contain solid and remove to transport vehicle, transport to disposal site.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, including applicable state regulations.

Printed/Typed Name: TERRY WRIGHT
Signature: Terry Wright
Date Month Day Year: 2 27 87

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jim O. Rowell
Signature: Jim O. Rowell
Date Month Day Year: 02 27 87

18 Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date Month Day Year

19 Discrepancy Indication Space

20 Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: Tou Petersoni
Signature: Tony Peterson
Date Month Day Year: 03/2 87

EPA Form 870 84.

TRANSPORTER 14

HANDOUT 12-2

SAMPLING STRATEGY PROBLEMS

1. Regulations require that all employees of Dumpstump, Inc., complete a training course -- within two months of being hired -- on how to handle hazardous material safely. Your task is to find out whether the company has complied with these regulations. Agency records indicate that the company employs 525 people. You plan to review records and then conduct follow-up interviews with several employees to verify the records. You have approximately one hour to complete the records review portion of this task.

   Dumpstump officials tell you that each employee's personnel file has a record in it showing that the required training has been completed. Company officials show you a file cabinet that they say contains all of the personnel files, organized in alphabetical order by employee name. There are 389 files.

   What factors would be important to supporting a reasonable conclusion about compliance at the firm? What are the potential biases in the files? How might the discrepancies between the number of personnel files and the Agency's records regarding the number of employees be explained? Is there a particular category(ies) of employee that you want to focus on? Is there any category of employee that you want to exclude? Which sampling method or methods could you use to select specific records for review? How would you select the individuals to be interviewed?

2. The Spewforth Company is required to submit a written report to the Agency if it has had a minor discharge exceeding its permit limit; these reports must be submitted within five working days of the end of the month. Major discharges must be filed within five days of their occurrence. Spewforth's permit requires them to take and analyze discharge samples from three locations twice a week, and to maintain records of the sampling and results for Agency review upon request.

   In the past 24 months, the Agency has received only one monthly report about a minor exceedance; no major discharge was reported. The last inspection of the facility took place more than two years ago. Although the Agency has no direct knowledge that discharge exceedances have occurred, neighbors have complained that orange-colored, smelly liquid comes out of the pipe once in awhile -- but no dates were given.

   The company keeps logs of its sampling activities and analytic results. Your period of interest is the previous two years. Since three samples are (supposed to be) taken each week, the logs are far too extensive to allow for review of all entries. How could you go about selecting log entries for review?

SESSION 12: RECORDS INSPECTION

- Conduct of Record Reviews
- Records Sampling Techniques

Text: Chapter 12

PROBLEM A

A company has not submitted any reports of exceeding its discharge permit limits. Your inspection of the facility indicates poor operation and maintenance of pollution control equipment, leading you to suspect that it may have failed. You want to determine whether there were any excursions that should have been reported to EPA.

- What records would you look at?
- What would you be looking for?
- What evidence would you need to collect?

PROBLEM B

The Agency has a tip that a company has begun manufacturing and distributing a new chemical (dibenzo-horrible) before completing the required premanufacture review proces (e.g., TSCA or FIFRA).

- What kinds of records and documents would you look for?
- What other evidence might there be?
- How would you approach an inspection to see whether a company was making a new product if the Agency had no tip?

PROBLEM C

A company's records regarding storage of hazardous waste are sloppy and incomplete. You can easily document the violation of record-keeping requirements, but you suspect they are storing for much longer than the allowed period.

- What records might help to confirm or refute this suspicion — by their presence or absence?
- What could you collect for evidence?

PROBLEM D

A citizen has notified the Agency that a dredging company has allegedly disposed of dredged material into wetlands owned by the town of Clarksville.

- What records might help to confirm this allegation?
- What evidence would you need to collect?

OVERVIEW OF RECORDS SAMPLING STEPS

1. Determine objectives for sample
2. Identify total population
3 Select sampling method
4. Determine sample size
5. Conduct sampling
6. Document the sampling methodology

SAMPLING TECHNIQUES

- Judgmental Samples
- Random Samples
- Systematic or Interval Sampling
    - Stratified Sampling
    - Block Sampling

SESSION 13
TOPIC: INTERVIEWING
INSTRUCTOR'S OVERVIEW

Time: 75 minutes

Purpose

Present basics of planning, conducting, and documenting interviews

Demonstrate interview techniques through role play (note: this role play is crucial to the session)

Improve trainee interviewing skills through discussion of techniques and practice

Key Points

The person you are interviewing knows more than he or she thinks.

Advance Preparation

Review text Chapter 14.

Select experienced inspectors to play the roles in the scenario. Give them Handouts 13-1 and 13-2 and allow them time to prepare for the presentation.

Equipment

Overhead projector

List of Visuals

13-A -- Topic Summary
13-B -- What is wrong with these questions?

List of Handouts

13-1 -- Interview Scenario Instructions (Mr./Ms. Functionary)
13-2 -- Interview Scenario Instructions (Mr./Mrs. Candoo)

Suggested Teaching Outline

Lecture/Discussion: Conducting Interviews	40 minutes
Role Play Exercise	20 minutes
Discussion of Exercise	15 minutes

INTRUCTOR NOTES	**SUGGESTED CONTENT**
Introduction **Overhead 13-A** **Topic Summary**	Introduce yourself, including background, EPA experience and your role in the course. After discussing the steps in planning and conducting an interview and tips for improving interview skills, we will have a demonstration to show what you can learn from an interview.
DISCUSSION (40 min.)	**CONDUCTING INTERVIEWS**
Try to encourage participation throughout this session. Demonstrate techniques for eliciting information through your questioning of the group.	**Purpose and Products of Interviews** Interviews can provide valuable information to develop leads, provide evidence, or assist in cross-examination. Oral or written statements are generally admissible in court. The results of interviews can be an affidavit, verbatim record, unsworn statement, or informal notes. The most productive interviews are those in which the interviewee feels comfortable and respected. The atmosphere should not be adversarial. Some tips for improving the "climate" for the interview are: • Attitude: Be courteous and open-minded; avoid comments that could be taken as threatening. • Setting: Conduct the interview in a setting where the interviewee feels comfortable and make sure that there is sufficient privacy. • Non-verbal cues: Shake hands, maintain eye contact, and keep adequate distance. • Pace: Give the interviewee time to think about his/her responses; don't be afraid of short silences. • Questioning: Avoid leading questions or use of gestures or words that indicate positive or negative response to a statement by the interviewee.

INSTRUCTOR NOTES

Ask the group to suggest specific tecniques for getting the most out of an interviewee. Try to encourage the group to suggest responses to these questions.

SUGGESTED CONTENT

Planning, Conducting, Documenting the Interview

What are key steps in planning interviews?

- Identify interviewees based on their responsibilities.
- Schedule interviews at times convenient for interviewees.
- Set objectives for each interview and identify information sought from each interviewee.

What are key steps in conducting interviews?

- Establish a positive climate and rapport with the interviewee.
- Ask the interviewee to describe his/her responsibilities, particularly in reference to the topics being reviewed in the inspection.
- Gather detailed information about specific topics.
- Verify information with the interviewee.

How can the interview be documented?

- Formal affidavit or written statement
- Written notes
- Tape recording (although this is less desirable).

Techniques for Improving Interviewing Skills

The types of questions to be asked include:

- What happened?
- When did it happen?
- Where did it happen?
- Why did it happen?
- How did it happen?
- Who was involved?

INSTRUCTOR NOTES

SUGGESTED CONTENT

What are key elements in formulating questions?

- Be precise
- Be clear and as simple as possible
- Encourage a narrative answer, not a yes or no
- Avoid leading questions
- Avoid double negatives and other complex phrases
- Limit the question to one subject.

Ask the group to critique the following hypothetical questions.

Overhead 13-B
What is wrong with these questions?

What is wrong with these questions?

- Didn't you see the unmarked drums on the loading dock? (leading; yes/no response)
- What did you do when you discovered the unmarked drums on the loading dock? (leading)
- Why were you on the loading dock and what did you do when you left? (too many points in a single question)
- Are most drums around the facility generally marked correctly? (imprecise, does not yield useful information)

Key elements in sequencing include:

- Work from the general to the specific
- Work backward in time (and what did you do before that?)
- Work from the known to the unknown (Q1: What means of transportation did you use? A1: A car. Q2: Who drove? A2: I did.)

INSTRUCTOR NOTES **SUGGESTED CONTENT**

Useful tools in helping the interviewee to estimate quantities more accurately include:

- Use simple reference points (one-half mile downstream from City Hall)
- Relate to commonly observed quantities (a truckload, a given number of barrels)
- Compare to similar items (further than from here to that wall, more than that group of drums over there)

Questioning methods include:

- Free narrative, an account given by the interviewee with little or no prompting or questioning
- Systematic questioning, designed to elicit information in a particular sequence.

ROLE PLAY EXERCISE (20 min.) **INTERVIEW SCENARIO**

Select experienced instructors to play roles and allow them time to prepare.

Give all trainees a copy of Handout 13-2 so they will know what the inspector is looking for.

Conduct the scenario.

INSTRUCTOR NOTES	SUGGESTED CONTENT
DISCUSSION (15 min.)	**ROLE PLAY DISCUSSION**
After the role-play, discuss the interview's strengths and weaknesses. Among the questions you might wish to pose are:	**Role Play Discussion** • Overall, what went well? What did not? • How well did the inspector open the interview? Did he/she try to make the employee feel more comfortable? What worked or didn't work? • What techniques did the inspector use to probe for answers? • Did the inspector over-use or under-use any particular type of question? • Was the inspector's note-taking obtrusive?

HANDOUT 13-1

INTERVIEW SCENARIO

Instructions for Mr./Ms. Functionary:

You work at a hazardous waste facility that is allowed to accept only certain types of wastes. You are a low-level employee. It is your responsibility to stop trucks when they arrive, be sure that their manifest paperwork is in order, and log in the shipments. After they are finished with you, you send the trucks on to Mr. Zyleen, who works in a different building. You don't know what happens after that.

You have never been interviewed by a government official before, and you are afraid that you might have done something wrong. Further, you're afraid you'll get fired if you say something that will get the company in trouble.

You should let important pieces of information slip out "unintentionally" such as, your post is unattended if you go to the restroom or to get a snack. Demonstrate to the group that important information can be obtained by a good interviewer who listens carefully.

HANDOUT 13-2

INTERVIEW SCENARIO

Instructions for Mr./Mrs. Candoo:

This is a small, commercial hazardous waste facility with a permit to dispose of only certain types of wastes. The facility has a history of record-keeping violations, and the Agency has reason to suspect that unpermitted wastes are being disposed of there. You are going to interview Mr./Mrs. Functionary, having been told that this is the first employee to have contact with waste trucks when they arrive and "keeps the records."

You are looking for clues to where the company's system might be breaking down. You want to know, for example:

- Whether it is possible for a truck to get past Mr./Ms. Functionary without stopping. (What if he/she takes a break to go to the restroom?)
- How the company's logging system works, where the facility's copy of the manifest goes, and who (if anyone) reviews the logging and filing system.
- Who is responsible for making sure that the wastes listed on the manifest are allowed to be accepted by the facility.
- What kind of training Mr./Mrs. Functionary has had.
- Where the trucks go after they see Mr./Mrs. Functionary.

As the inspector, you will need to take notes during the interview so that you can reconstruct later.

SESSION 13: INTERVIEWING

- Planning and Conducting an Interview
- Techniques for Improving Interview Skills
- Interview Scenario

Text: Chapter 14

WHAT IS WRONG WITH THESE QUESTIONS?

- Didn't you see the unmarked drums on the loading dock?
- What did you do when you discovered the umarked drums on the loading dock?
- Why were you on the loading dock and what did you do when you left?
- Are most drums around the facility generally marked correctly?

SESSION 14
TOPIC: OBSERVATIONS/PHOTOGRAPHS
INSTRUCTOR'S OVERVIEW

Time: 60 minutes

Purpose

Present procedures concerning recording and documenting observations

Present tips for improving techniques

Key Points

Photographs are excellent evidence.

Advance Preparation

Text reference Chapter 15.

While a set of photographic slides and drawings is provided, experience has shown that this session works best if the instructor is personally familiar with the visual illustrations and what they represent. For this reason, it is recommended that the instructor prepare his or her own visuals to augment or substitute for the ones that are provided. Ideally, they should include photographs and other visuals that were good for evidence purposes and those that illustrate a particular problem in technique.

The instructor should be prepared to answer questions regarding what cameras are typically used for inspections in the Region.

Equipment

Overhead projector
Slide projector

List of Visuals

Photographic slides
14-A -- Topic Summary
14-B through 14-G -- Overheads of drawings and illustrations

Suggested Teaching Outline

Lecture: Introduction	5 minutes
Lecture: Tips on Photographs	20 minutes
Discussion of Slides	20 minutes
Lecture: Tips on Other Techniques	15 minutes

INSTRUCTOR NOTES	SUGGESTED CONTENT
LECTURE (5 min.)	**INTRODUCTION**

Introduction

Introduce yourself, including background, EPA experience, and your role in the course.

As we discussed yesterday, the notes you take in your field logbook are the core documentation of every inspection. You should write down what you see, hear, feel, or touch.

Overhead 14-A
Topic Summary

In addition to your notes in the field logbook, there are several other ways to record your visual observations during the inspection:

- Photographs
- Drawings
- Maps
- Schematics
- Diagrams

Of course, when you use these techniques, make notes in the field logbook so that they can be properly identified.

In this session, we will discuss the importance of this type of documentation, and will present some tips for improving your skills.

Why are these techniques for recording visual observations, especially photographs, important?

- They show a person who was not at the site what was there (such as your supervisor, the attorney on the case, the judge).
- They support other evidence and enhance credibility.
- They can be evidence in and of themselves.
- They can help in jogging the inspector's memory.

Take as many photos as you can -- you can never have too many!

INSTRUCTOR NOTES	SUGGESTED CONTENT
LECTURE (20 min.)	TIPS ON PHOTOGRAPHS

Photographs are excellent physical evidence. To be admissible, they must "fairly and accurately represent" what the inspector saw on-site. The inspector does not need to have taken the photos himself.

Inspectors have a right to photograph anything. If the facility restricts the inspector's ability to photograph, it is considered a denial of consent.

There may be sensitivity about confidential information that is not relevant to the inspection in a picture. Although you have the right to take it, you may want to shield it before taking the picture.

The inspector should be comfortable with his/her camera, and should not attempt to use a camera that is beyond his/her capabilities. Single lens reflex and instamatic cameras are generally the simplest. In general, the best film for inspections is high-speed color print film.

Documentation

Photographs should be documented in the field logbook. Some inspectors use a separate photo log to record this information. If an instant camera is used, some documentation can be written on the back of the photo itself.

At a minimum, documentation should include information indicating:

- The location where the picture was taken (facility name, exactly where at the site the picture was taken);

- Date and time the photograph was taken; and

- An identifying number or other means for matching the photo with the particular inspection and particular location and activity at the site.

If relevant or necessary to explain the picture, notes can also include:

- Lighting and weather conditions;
- A brief description of the scene;
- The number(s) of any related physical samples; and
- Any special filters or lenses that were used.

If the inspector is not using a standard camera and film, it can be useful to also record a description of the film used, type of camera and attachments, focal length of the lens, F-stop, and shutter speed.

(Additional documentation may be needed for some programs such as stationary air. Consult program-specific guidance.)

Each inspector should develop a system that is quick and easy for recording this information. Do not allow a cumbersome system to discourage you from taking photographs.

"Tips" on taking photographic documentation:

- Place a common item next to the item of interest to indicate size and scale.
- Photograph all sides of an object if necessary to document violation.
- Taking several photographs of an item using different settings for shutter speed and depth of field if lighting conditions are poor.

Videotape equipment is not readily available for inspectors but may become more widely used. Similar instructions would apply.

INSTRUCTOR NOTE	**SUGGESTED CONTENT**
DISCUSSION OF SLIDES (20 min.)	**WHAT'S WRONG WITH THIS PICTURE?**
Use the nine slides of photos from EPA inspection reports or select from among them. The purpose is to offer tips on taking good quality photographs. You may use your own slides in addition to or in place of the slides that are provided and are discussed here.	I am going to show you photographs from EPA RCRA and NPDES inspection reports. I am going to offer tips on getting good quality photos under some of the conditions you are likely to encounter in the field.
Slides 1-5 are photos from a RCRA inspection at a hazardous waste generator.	
What is in the photo:	Comments on photos:
1) Collection of waste paint and paint thinner	Use of flash with strong backlighting resulted in labels showing clearly.
2) Hazardous waste storage area	Strong natural light from left can overly affect exposure, but proper exposure shows drums in shadows at far right.
3) Drum label waste rubber tile	Comparison of labels: overexposure.
4) Hazardous waste label	Too far away, so too small to read.
5) Hazardous waste label	Good combination of size and exposure.

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
Slides 6-9 are photos from a NPDES Diagnostic Inspection at a POTW.	
6) Influent and bypass channel with weir submerged (Evidence of overflows)	Good photo. Very bright day highlights shadow and light. Don't shoot into the sun.
7) Close-up influent and bypass channel	Nice sequence. Shows water going over weir into bypass channel.
8) Aerobic digester	Better vantage point on digester from above, rather than at ground level.
9) POTW	View from above may be more advantageous.

LECTURE (15 min.)	**TIPS ON OTHER TECHNIQUES**
	Drawings, sketches, and maps can provide useful clarification and could include: • Schematic drawings of equipment. • Simplified diagrams or schematics to clarify items photographed. • General map of the facility. • Map showing where photos and samples were taken. • Map showing where potentially non-complying situations were observed. • Map showing layout of a particular part of the facility.

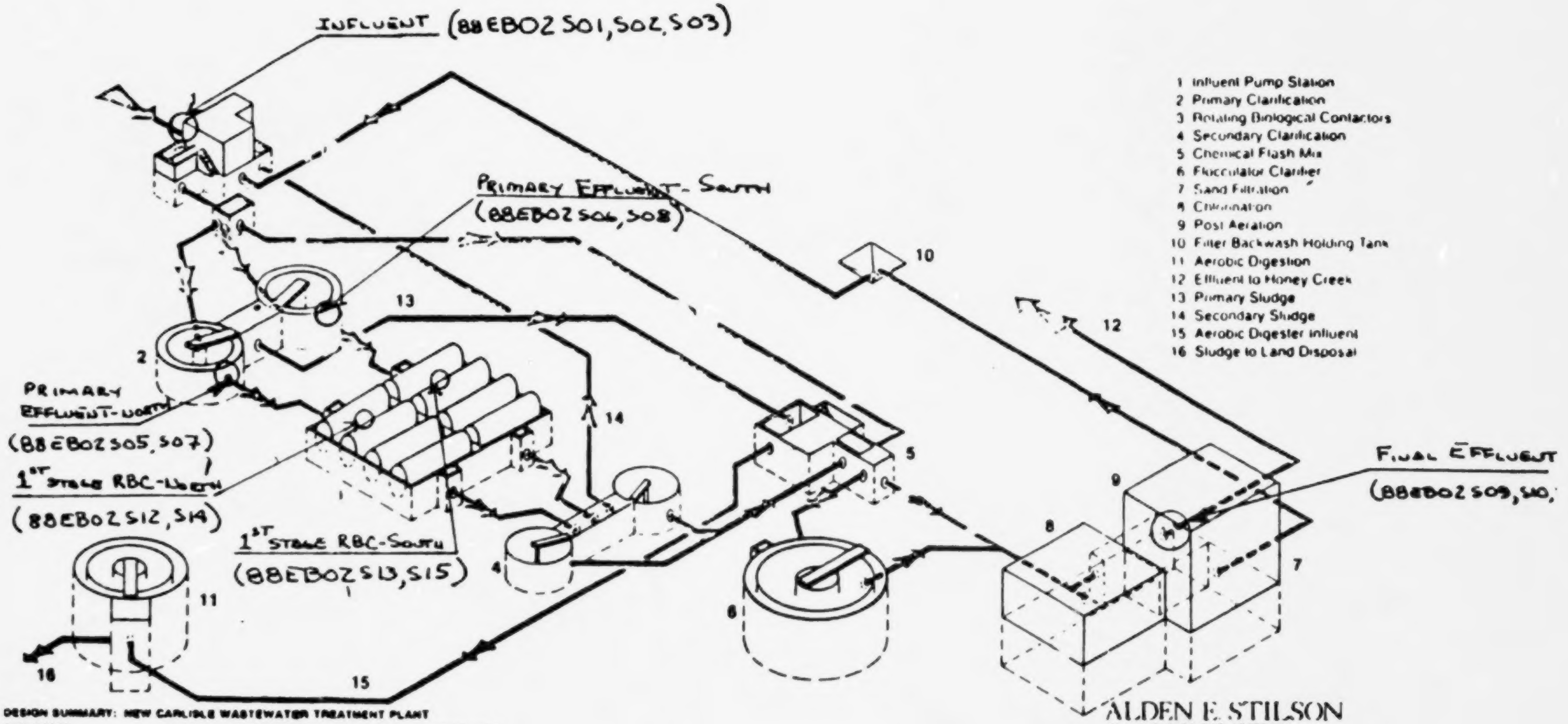
INSTRUCTOR NOTES	SUGGESTED CONTENTS
	In some situations very detailed maps are needed. Such maps must be prepared by technical experts. Tips on drawings, diagrams, schematics, maps: • Keep illustrations as simple as possible. • If possible, draw to scale and note lengths, heights, distances, etc. on the illustration. • Note colors or textures if relevant.
These illustrations are from USEPA inspection reports; some are computer-generated, others are handmade. You may use other material in addition to or in place of these illustrations.	
Overhead 14-B **Mark-up of an Architectural Drawing**	Diagram showing water sampling locations and sample numbers for a NPDES Compliance Monitoring Inspection at a municipal wastewater treatment plant.
Overhead 14-C **Drawing of a river segment showing the mile post**	Map of a stream segment showing the sampling sites for a study of the levels and fate of pollutants discharged from a municipal wastewater treatment plant to a river. Water and sediment sampling occurred at sites above and below the plant.
Overhead 14-D **General Schematic**	Illustration of testing locations for Stack Test Observation at a boiler house.
Overhead 14-E **Specific Schematic**	Illustration of the sampling location for Stack Test Observation at a boiler house.
Overhead 14-F **Map shows relationship of inspector to the stack and boiler house**	Sketch of the site for Visible Emissions Observations at a boiler house.
Overhead 14-G **Drawing of a Landfill**	Sketch of locations for RCRA waste sampling of a dust/slurry mixture at a company landfill.

SESSION 14:

OBSERVATIONS/ PHOTOGRAPHS

- Photographs
- Other Techniques

Text: Chapter 15


INFLUENT (88EB02S01,S02,S03)
PRIMARY EFFLUENT-SOUTH
(88EB02S06,S08)
PRIMARY EFFLUENT-NORTH
(88EB02S05,S07)
1ST STAGE RBC-NORTH
(88EB02S12,S14)
1ST STAGE RBC-SOUTH
(88EB02S13,S15)
FINAL EFFLUENT
(88EB02S09,S10,
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
1 Influent Pump Station
2 Primary Clarification
3 Rotating Biological Contactors
4 Secondary Clarification
5 Chemical Flash Mix
6 Flocculator Clarifier
7 Sand Filtration
8 Chlorination
9 Post Aeration
10 Filter Backwash Holding Tank
11 Aerobic Digestion
12 Effluent to Honey Creek
13 Primary Sludge
14 Secondary Sludge
15 Aerobic Digester Influent
16 Sludge to Land Disposal

DESIGN SUMMARY: NEW CARLISLE WASTEWATER TREATMENT PLANT

PARAMETER	DESIGN	PRESENT (1988)	% REMOVAL	NPDES LIMIT
Population	11,400	8,660		
Flow, MGD	1.0 MGD	0.563 mgd		1.0 MGD
Suspended solids				
Raw Influent	275 mg/l	166 mg/l		
Final Effluent	8 mg/l	2 mg/l	99.0%	10 mg/l
Biochemical Oxygen Demand				
Raw Influent	230 mg/l	262 mg/l		
Final Effluent	5 mg/l	4 mg/l	98.0%	15 mg/l
Ammonia Nitrogen				
Raw Influent	25 mg/l	34.6 mg/l		2.0 mg/l summer
Final Effluent	1.0 mg/l	0.90 mg/l	97.0%	* 3.0 mg/l winter

ALDEN E. STILSON
& ASSOCIATES
ENGINEERING · ARCHITECTURE · PLANNING
170 NORTH HIGH STREET · COLUMBUS OHIO 43215

Schematic of the New Carlisle
Wastewater Treatment Plant

FIGURE 3

SAMPLING LOCATIONS
APRIL 12-13, 1988
88EB02

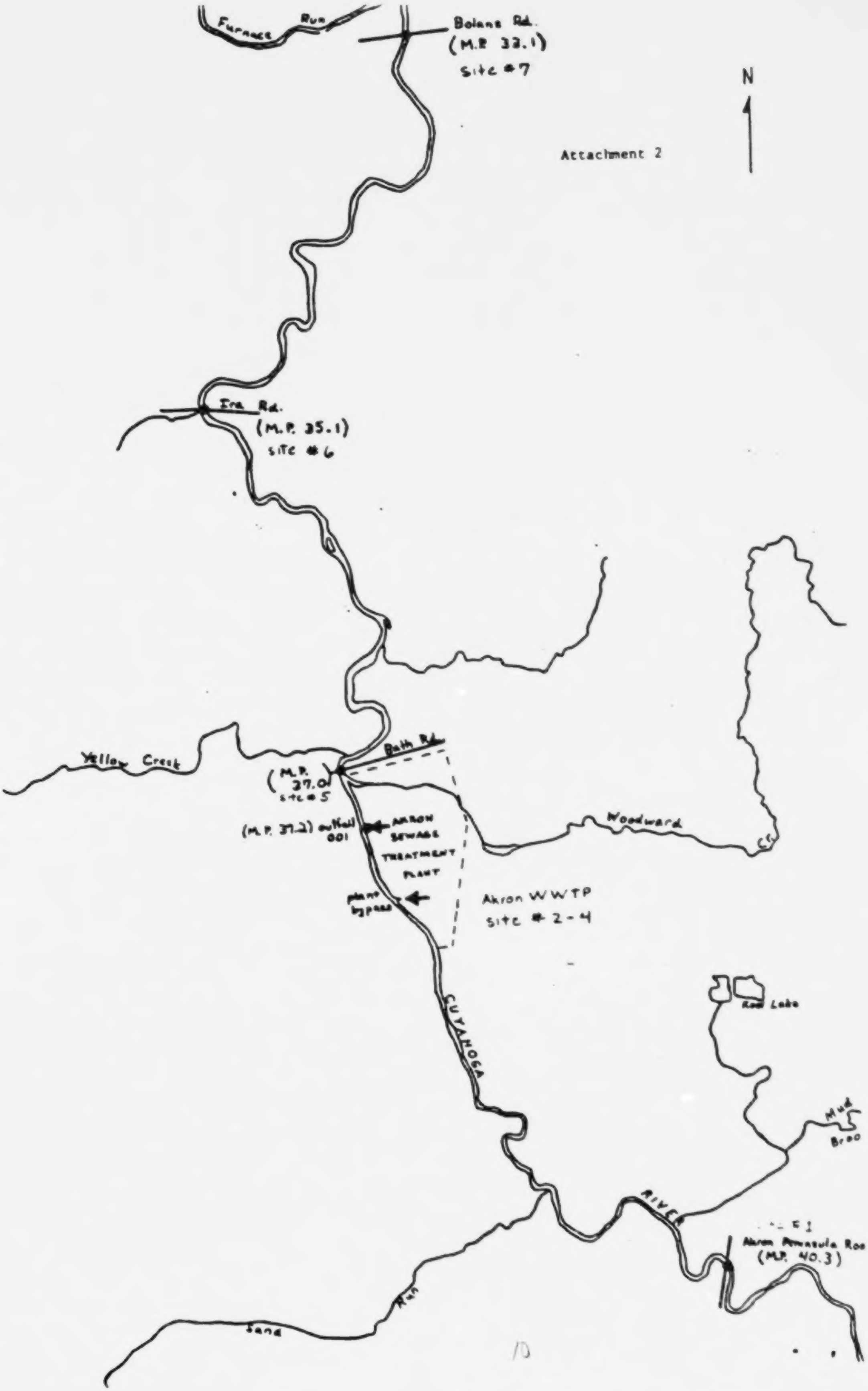
9

Reproduced from
best available copy.

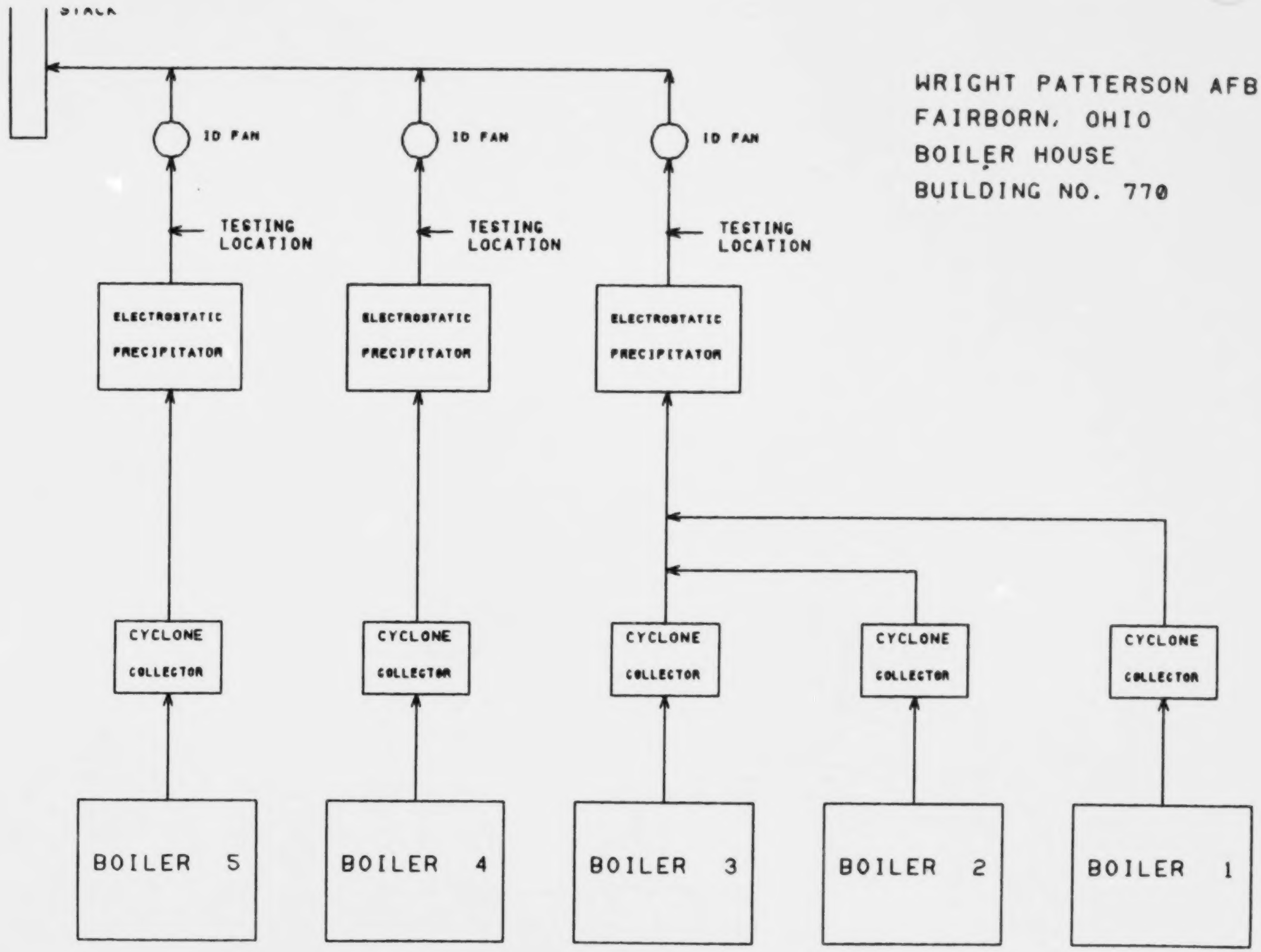
Overhead 14-B

Attachment 2

Overhead 14-C

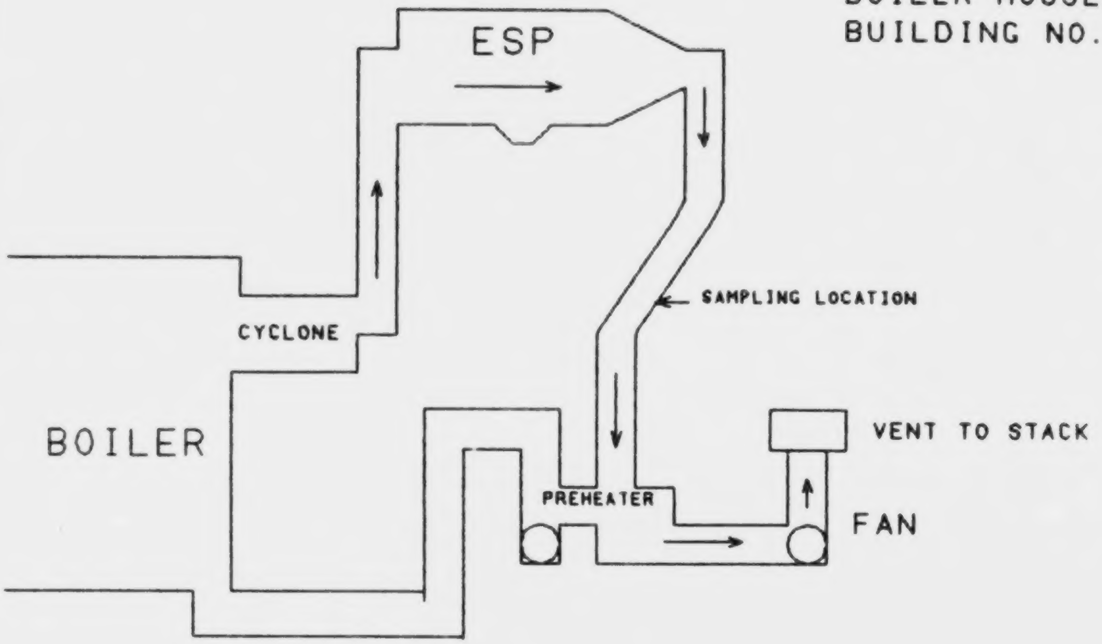

Furnace Run
Bolanz Rd.
(M.P. 33.1)
site #7
N
Ira Rd.
(M.P. 35.1)
site #6
Yellow Creek
Bath Rd.
(M.P. 37.0)
site #5
(M.P. 37.2) outfall 001
AKRON SEWAGE TREATMENT PLANT
plant bypass
Akron WWTP
site #2-4
Woodward Cr.
CUYAHOGA
RIVER
Red Lake
Mud Broo
Akron Peninsula Roa
(M.P. 40.3)
Sand Run

WRIGHT PATTERSON AFB
FAIRBORN, OHIO
BOILER HOUSE
BUILDING NO. 770


STACK
ID FAN
ID FAN
ID FAN
TESTING LOCATION
TESTING LOCATION
TESTING LOCATION
ELECTROSTATIC PRECIPITATOR
ELECTROSTATIC PRECIPITATOR
ELECTROSTATIC PRECIPITATOR
CYCLONE COLLECTOR
CYCLONE COLLECTOR
CYCLONE COLLECTOR
CYCLONE COLLECTOR
CYCLONE COLLECTOR
BOILER 5
BOILER 4
BOILER 3
BOILER 2
BOILER 1

Overhead 14-D

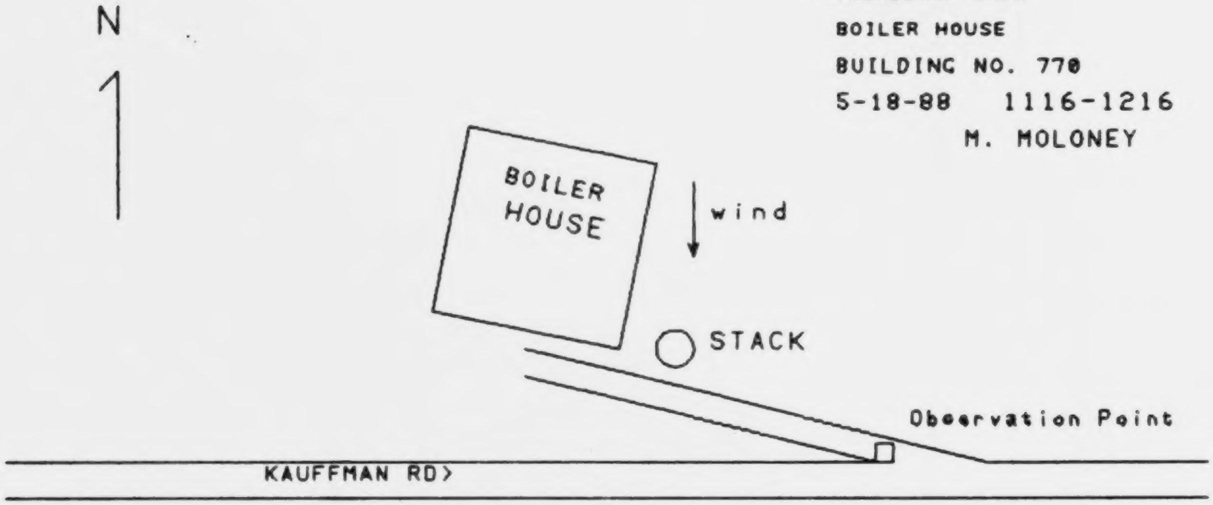
WRIGHT PATTERSON AFB
FAIRBORN, OHIO
BOILER HOUSE
BUILDING NO. 770


ESP
CYCLONE
BOILER
SAMPLING LOCATION
VENT TO STACK
PREHEATER
FAN

MEM 6-1-88

Overhead 14-E

VISIBLE EMISSIONS SITE SKETCH
WRIGHT PATTERSON AFB
FAIRBORN, OHIO
BOILER HOUSE
BUILDING NO. 770
5-18-88 1116-1216
M. MOLONEY


N
BOILER HOUSE
wind
STACK
Observation Point
KAUFFMAN RD>

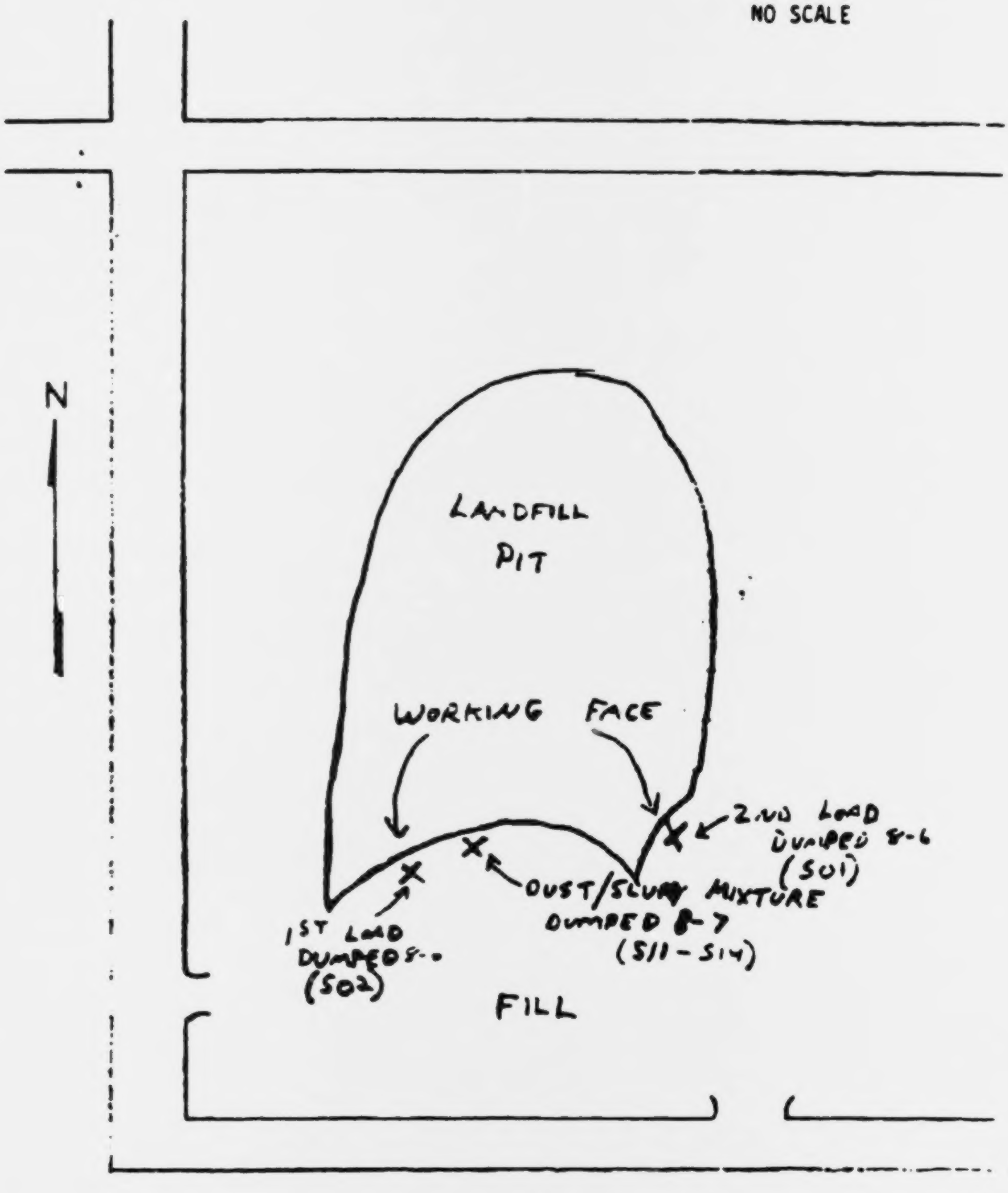
No Sun
Sky Overcast

to scale

FIGURE 1

Landfill

August 6&7, 1986


NO SCALE
N
LANDFILL PIT
WORKING FACE
2ND LOAD DUMPED 8-6 (S01)
DUST/SLURRY MIXTURE DUMPED 8-7 (S11-S14)
1ST LOAD DUMPED 8-6 (S02)
FILL

SESSION 15
TOPIC: INSPECTION REPORT
INSTRUCTOR'S OVERVIEW

Time: 210 minutes

Purpose

Explain the importance of the inspection report

Discuss the elements of a good inspection report

Provide practical experience in report writing style

Evaluate inspection reports

Key Points

The inspection report should be factual, free of opinions and conclusions of law.

The report should explain in detail what happened on the inspection and substantiate in full any potential violations.

Advance Preparation

Text reference Chapter 17.

Several options are given for the inspection report evaluation portion of the session. Three actual inspection reports are provided in these materials, but you may wish to substitute inspection reports from your Region for one or more of the examples. Another approach would have each inspector bring a recent inspection report of his or her own for critique; if this option is selected, trainees will need to be notified in advance.

Equipment

Flip chart and chart paper, or blackboard
Overhead projector

List of Visuals

15-A -- Topic Summary
15-B -- Write to Express
15-C -- Keep it Simple
15-D -- Keep the Reader in Mind
15-E -- Who?
15-F -- What?
15-G -- When?
15-H -- Where?
15-I -- Why?

15-J -- How?
15-K -- Avoid the "It" Habit
15-L -- Avoid Careless Pronouns
15-M -- Be Concise
15-N -- Active Voice Problem
15-O -- Action Verb Problem
15-P -- Conciseness Problem
15-Q -- Coherence Problem
15-R -- Answer to Request For Information
15-S -- Beginning a Report
15-T -- Reporting Interview Results
15-U -- Reason for Inspection

List of Handouts

15-1 -- Inspection Report Evaluation Guide
15-2 -- Inspection Report Samples

Suggested Teaching Outline

Lecture/Discussion: Official Files	15 minutes
Lecture/Discussion: The Effective Inspection Report	45 minutes
Lecture: Checklists versus Narrative Reports	15 minutes
Break	
Discussion: Inspection Report Evaluation Guide	30 minutes
Lecture: Tips for Writing an Inspection Report	30 minutes
Lunch Break (but make Exercise assignments before lunch)	
Exercise: Critique of Inspection Reports	75 minutes

INSTRUCTOR NOTES	SUGGESTED CONTENT
Introduction This summary assumes that trainees were given the inspection reports to read last night. If they did not, you will need to make adjustments to allow time for thorough reading of the reports rather than just review in class. **Overhead 15-A Topic Summary**	Introduce yourself, including your background and EPA experience. Today, we have a long session on perhaps the most important aspect of being an inspector -- writing the inspection report. We will begin with a discussion of what goes into the official file for an inspection. Then we will discuss the features of a good inspection report and give you some tips on how to write reports clearly. Finally, we will critique the inspection reports that you read last night.
LECTURE/DISCUSSION (15 min.)	**OFFICIAL FILES**
	The official files related to an inspection or investigation comprise the Agency's legal documentation of its activities, and should be treated as potentially admissible evidence in a legal proceeding. **Components of the Official Files** Historical Records usually are contained in the official files for the facility or site being investigated. These records include such things as permit applications, previous inspection plans and reports, site maps, plans, drawings, and descriptions. The Inspection File normally contains all of the records associated with an inspection; the inspector is responsible for creating this file and assuring its completeness and accuracy. Case development personnel need a complete file to review in deciding whether and what kind of enforcement responses may be appropriate. All material in official files should be factual and should not contain opinion or other extraneous comments.

INSTRUCTOR NOTES

Ask the group to list the items that should go into the official file for the inspection record. Record on chart paper. Be sure to cover the items in the Suggested Content column if not raised by the group.

SUGGESTED CONTENT

The types of records that should be kept in the Inspection File include:

- Investigation Requests (if issued).
- Communications such as official correspondence and records of telephone and personal conversations.
- Notice of Inspections, if the statute requires a written notice be presented.
- Verification of Credentials, if the statute requires presentation of credentials to the owner, operator, etc.
- Inspection Confidentiality Notice for all TSCA inspections.
- Declaration of Confidential Business Information, if materials have been claimed as confidential.
- TSCA Confidentiality Clearance References.
- Receipt of Samples and Documents.
- Inspection Project Plan.
- Narrative Inspection Report.
- Inspection Report Form.
- Other Evidence.
- Custody Records.
- Laboratory Analyses, if applicable.
- Subpoena, if issued.
- Warrant, if issued.
- Field Logbook.

INSTRUCTOR NOTES	SUGGESTED CONTENT
LECTURE/DISCUSSION (45 min.)	**THE EFFECTIVE INSPECTION REPORT**

Proper documentation of an inspection is a key aspect of an inspector's job. It is the way the inspector communicates his or her findings from the inspection. If your report does not communicate your findings well -- clearly, accurately, and convincingly -- then your time has been wasted and the environment will suffer. If you discover evidence that indicates serious violations but your report fails to permit that case to be made, chances are the company will be able to continue its violation. If, on the other hand, you prepare a highly effective report, EPA will probably be able to take strong action and obtain a favorable settlement or court decree.

In other words, nothing you do is more important than your inspection report. Government officials and attorneys who review the report must have all the facts to make appropriate and effective decisions.

The purpose of the inspection report is to present a factual record of an inspection, from the time when the need for the inspection is perceived through the analysis of samples and other data collected during the inspection. An inspection report must be complete and accurate, because it will provide the basis for potential enforcement actions and may become an important piece of evidence in litigation.

The objective of an inspection report is to organize all evidence gathered in an inspection in a comprehensive, usable manner. The central purpose is to communicate information to the reader.

- Strive to eliminate any possibility of erroneous conclusions, inferences or interpretations.

- Focus on the facts. An effectively prepared report saves time for the inspector and the reviewers by assisting those who must make the final decision and take action on the report.

INSTRUCTOR NOTES	SUGGESTED CONTENT
Ask the group to give reasons why the inspection report is important. Record answers on chart paper or a blackboard. Be sure the points in the Suggested Content column are covered if not raised by the group.	A report must be complete and provide a basis for action. • If the report is not complete and factual, time will be wasted in attempting to remedy the situation by making a supplemental investigation or report, or the violation may be lost altogether due to inability to reconstruct the evidentiary foundation that would allow an enforcement action to proceed. • A report is a written record of the results of the investigation and provides the permanent record which may later be used as evidence itself or to refresh a recollection. • The report serves as a starting point for the next inspection. It should identify processes, problems, and areas of particular concern. It also must fully inform other inspectors who may become responsible for subsequent inspections. • The report should identify what processes or parts of the facility were not examined, if any. This information will provide assistance for future inspections or return inspections; it will also make clear the extent of the evidentiary foundation for any enforcement action that might be based on the report. • The report should include surrounding conditions. For example, the inspector should include facts about a witness' background if they reflect on the witness' credibility; and small details that the inspector would not ordinarily recall six months to a year after doing the inspection or report. • Finally, as one long-time EPA manager stated it: "The quality of your inspection reports can make or break your career."

Essentials of Good Reports

- Factual. The report should contain only facts. No opinions, particularly regarding potential violations, should appear.

- Fair. Inspection reports must be entirely objective, unbiased, and unemotional.

- Accurate. Be exact. Avoid exaggerations. Omit opinions, conclusions, and inferences. For example: If you saw someone loading bags marked "toxic chemicals," do not write that you saw a person loading toxic chemicals. You only saw someone loading bags marked toxic chemicals. Avoid superlatives.

- Complete. Completeness implies that all the known facts and details have been reported, either in the text of the report or in an exhibit, so that no further explanation is needed. The report should answer the questions: who, what, how, when, where, and why related to the compliance situation. Tips on completeness include:

    - The first time they are mentioned in a report, all individuals should be identified completely by their first, middle and last names.

    - The chronology of occurrences should be stated clearly.

    - The location of the occurrences should be identified as a definite place.

    - Why a situation occurred is particularly significant with respect to violations where intent is an element of the offense.

- Source. Always report the source of evidence.

- Exhibits. The report should be complete in that it is one single document.

- Concise. Conciseness means omitting unnecessary words; it does not mean omitting facts, detail and necessary explanation.

- Clear. Everything in the report must be relevant and essential to the main purpose of the report. Use specific and concrete expressions rather than general or abstract statements.

LECTURE (15 min.)

CHECKLIST VERSUS NARRATIVE REPORTS

Some EPA offices use checklists for routine inspection reports in lieu of narrative reports.

There are several arguments for and against the use of checklists.

Proponents of checklists favor them for routine inspections because:

- They remind inspectors what to look for, what SOPs to use, etc.

- They are a bare bones record of what happened.

- They are less paperwork.

- The effort involved in preparing a narrative report for a "squeaky clean" inspection exceeds its value since it may never be used.

Proponents of routine preparation of narrative reports (or checklists plus narrative reports) find them valuable for managerial purposes and legally the safest.

Managerial purposes:

- Assures the inspector knows how to inspect and how to report, and regularly does these things correctly.

- Provides a baseline for tracking long-term conduct of a particular inspected entity.

INSTRUCTOR NOTES **SUGGESTED CONTENT**

- Provides the inspector with experience and practice in narrative report writing, leading to higher personal proficiency.
  - Forces the discipline of noting or writing down activities and observations.
  - These notes are analyzed and reflected on several times in preparing a report (first on occurrence, second when writing down, and third when typing).
  - The mental reflection involved in preparing a report reinforces an investigative attitude in the inspector.

    (Why am I writing: No leaks were found? This could mean many things ... I didn't see anything obvious; I looked at top, bottom, all sides and didn't see anything. What did I really do?)
- Checklist has very sketchy information; if the inspector should leave the Agency, the Agency has no record of what was learned.

Legal considerations:

Legal considerations are even more crucial, affecting whether an inspection report can be admitted as stand-alone hearsay proof.

- A checklist has little weight or credibility. They are hard to authenticate; cannot authenticate checkmarks like you can handwriting.
- If there is only a checklist, there is not enough information for it to stand on its own.
- In short: "He who uses a checklist can expect to be cross-examined."

  (On what basis did you fill in the box, who did you talk to, who did you see, what did you observe, prove it.) Unless the inspector has really good notes in the field logbook, the inspector's testimony is not likely to be credible.

Since inspections are the backbone of the enforcement effort -- the litmus test of a good or desirable inspection report is:

What will happen in court?

- Case law regarding checklists as a bare bones record shows there are problems in admissibility on such bases as:
    - Scarce/incomplete information
    - Cavalier
    - No proof of how the record was made
    - What observations the record was based on.
- Conversely, case law on narrative reports show narrative reports can be admitted as stand-alone hearsay proof (e.g., without the testimony of the inspector).
- Several Federal Rules of Evidence regarding exceptions to the hearsay rule apply if it is routine practice to make narrative reports.

Conclusions:

Use of a checklist alone is very risky:

- Hindsight can never cure an inspection report that has less in it then prudence would counsel.
- Inspector may forget important observations, statements, or corroborating details.
- Inspector may have left the Agency by the time a case comes to trial; a checklist is of virtually no value.
- Inspector may have little independent recollection of the inspection, but the checklist is not admitted by the court because it has little or no communicating language in the inspector's own hand.

INSTRUCTOR NOTES	SUGGESTED CONTENT
	It should be routine practice to develop narrative reports; failure to prepare a narrative report should be an exception specifically directed by the supervisor. A combination of checklist with adequate space for inclusion of handwritten details is preferable to a checklist alone, but a narrative report is still better. An acceptable alternative to writing down notes during the inspection is to dictate the details of the inspection into a tape recorder.
DISCUSSION (30 min.)	**INSPECTION REPORT EVALUATION GUIDE**
Distribute the Inspection Report Evaluation Guide Handout (15-1). Using the Guide, explain the various elements of an inspection report and why they are needed. Allow time for questions and discussion as you go along.	There are many different ways to organize an inspection report. Sometimes events are best organized in chronological order; other situations might be more easily understood by some other organizational structure, e.g., by grouping information about a particular suspected violation together. No matter what organization structure is used, the inspection report should contain information to answer the questions in the Evaluation Guide I am distributing.

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
LECTURE (30 min.)	**TIPS FOR WRITING AN INSPECTION REPORT**
Use the overhead slides to illustrate the writing principles.	In general, three rules apply to preparation of good inspection reports:
Overhead 15-B	• Write to express, not to impress.
Overhead 15-C	• Keep it simple.
Overhead 15-D	• Keep the reader in mind.
Overhead 15-E	The "who" in reports. - All individuals mentioned in a report should be completely identified the first time the name is mentioned; including their first, middle, and last names, if possible. - The individual should be identified by a brief descriptive phrase identifying who he is (e.g., whether plant manager, neighbor, employee, etc.). - A complete description of the person should be given if the name or any other identifying information is not available.
Overhead 15-F	The "what" in reports. - What happened? It does not mean what could have happened or might have happened. It means what, to the inspector's knowledge, happened.
Overhead 15-G	The "when" in reports. - The when is the date and time of the observation or an approximation if the exact time is unknown. Time is usually not critical unless it refers to an observed event (e.g., a process upset, a sampling procedure).

INSTRUCTOR NOTES	SUGGESTED CONTENT
Overhead 15-H	The "where" in reports. - Where is a definitive place to the exclusion of all other places. It should be clearly identified so that there is not confusion or misinterpretation.
Overhead 15-I	The "why" in reports. - This is the most significant with respect to violations where intent is an element of the offense (e.g., potential criminal violation). In such cases, the report writer's objective is to set forth the facts that show the intent with such clarity that there is no need for his own conclusions or opinions to be in the report. If the suspect or individual states why he did an act, the report would be factual if it reported: "Jones said that he dumped it because...."
Overhead 15-J	The "how" in reports. - Explanation of industrial processes and waste handling procedures is important for completeness. - Conjecture about "how" things might have occurred should be avoided. (But possible violations should be noted.)
Overhead 15-K	**Writing Tips** • Avoid the "It" problem. Careless use causes ambiguity; "it" and "there" should not be substituted for precise word selection.
Overhead 15-L	• Avoid careless pronouns. This too causes ambiguity.
Overhead 15-M	• Be concise. Conciseness does not mean omission; it is avoidance of all that is not essential.
Overhead 15-N	• Avoid passive voice.
Overhead 15-O	• Use action verbs.
Overhead 15-P	• Avoid wordiness. Use short, simple sentences.

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
Overhead 15-Q	• Be sure your meaning is clear.
Overhead 15R-15U	• Be clear, to the point. Note the improvements in these examples. • Avoid jargon. Explain abbreviations and technical terms.
EXERCISE (75 min.)	**CRITIQUE OF INSPECTION REPORTS**
The purpose of this exercise is to give inspectors experience in critiquing inspection reports, using the Inspection Report Evaluation Guide (Handout 15-1) as a tool for doing so. The instructor materials contain three actual inspection reports as a handout (Handout 15-2). Critical comments from inspector supervisors on these reports are included in the Suggested Comment column. (You may wish to substitute one or more reports from your own Region, or have each inspector bring a recent report of his or her own.) Give the instructions for the exercise and make group or partner assignments before breaking for lunch. This will give those who have not read the reports some extra time for reading them. It will also allow discussions to begin over lunch for those who have already read the reports.	Explain how this exercise will be conducted, including the time that individual reading time (or group discussion, as appropriate) will end.

INSTRUCTOR NOTES **SUGGESTED CONTENT**

There are several ways to conduct this exercise. In any approach, be sure to leave enough time at the end for discussion of what was learned.

Option A. Distribute the three inspection reports the night before so that trainees can read them before class. This will limit the amount of class time needed for reading and will allow for each trainee to become involved in critiquing all three reports.

Option B. Divide the trainees into three groups, and have each group focus on only one report during the class. The instructor would meet individually with each group to give feedback. Then there would be a wrap-up at the end at which highlights from each group would be discussed. The advantaged of this approach is that there would be time for more in-depth analysis. The disadvantage is limited cross-fertilization between groups.

Option C. Have each inspector bring in a recent inspection report he or she has written. Each inspector would be paired with another to evaluate and then provide feedback to each other on their reports. The advantage to this approach is the personal feedback. Disadvantages are that some trainees may not have prepared an inspection report yet; others may find this approach threatening. This option also requires notice to trainees in advance of the course.

Option D. Critique the inspection reports that are provided briefly, and then go into the trainee pair approach.

Option E. Use a combination of features from the various approaches.

The Suggested Content column contains comments from supervisors of inspectors about two of the three inspection reports that were provided as handouts. They can be used to help stimulate group discussion, and to see if trainees came up with the same or different problems with the reports.

Report A: Castings Manufacturing, Inc.

What problems did you identify with this report?

- Author not identified
- Titles of Sleuth, Tweed, and Heard not provided
- Location of landfill unclear
- Sample collection locations not always noted
- Sampling methods not always noted

INSTRUCTOR NOTES	SUGGESTED CONTENT

- No documentation of proper entry -- they may have been trespassing
- No observations of inside of facility
- Mr. Apple and Mr. Banana not well identified (title)
- Mr. Donut not well identified (title)
- Reason for discarding one jar not specified
- Text and table are inconsistent (see S11)
- Poor sketch (no scale, no road name)
- Date on analysis not provided.

If you were this inspector's supervisor, what would you tell him or her?

Report B: Gritty Wrecking

What are the good parts of this report?

- Thoroughness
- Day-by-day sequence
- Attachments were complete
- Describes neighborhood
- Lots of photographs
- Checked with relevant authorities
- Chain of custody

What problems are there?

- In narrative, somewhat vague on some sample locations -- the table is clearer
- Report contains opinion and conjecture
- No diagram of facility
- Did not sample some dry material that was being removed
- Did not identify Mr. Lip clearly
- Did not describe proper entry or presentation of credentials.

If you were this inspector's supervisor, what would you tell him or her?

Report C: Vigil Corporation

(No supervisor comments available)

What are the good points of this report?

What are the weaknesses of this report?

If Option C or D is used, provide time at the end for inspectors to discuss what they learned about their own (not their partner's) inspection report.

Inspectors' Own Reports

What did you learn about your own reports? Discuss strengths and weaknesses.

HANDOUT 15-1

INSPECTION REPORT EVALUATION GUIDE

The organization and format of an inspection report can vary based on the practice of the office or program, the particular circumstances of the inspection, and the individual writing style of the report writer. No matter what form the report takes, however, the report and its attachments should contain the answers to the questions which follow.

Basic Inspection Information

Who prepared the inspection report?

Who signed the inspection report, and on what date?

Who performed the inspection (all participants)?

What is the name and location of the facility/site?

What is the facility/site's mailing address and telephone number?

What is the name and title of the responsible official who was contacted?

What was the reason for the inspection (e.g., routine, response to a complaint, for cause)?

What are the names and titles of all of the government personnel who participated in the inspection?

Entry/Opening Conference

What are the facts about the entry (e.g., date, time, entry location, agent-in-charge)?

Is there documentation that proper entry procedures were followed?

Were all required notices and credentials presented?

Is there documentation that facility officials were informed of their right to claim information confidential?

Were there any unusual circumstances about gaining consent to enter (e.g., reluctance, attempts to limit inspection scope, attempts to place special requirements on inspectors)? How were they handled?

Who was present at the opening conference? What topics were discussed?

Background on the Facility/Site

What type of facility/site is it?

What types of activities and operations take place at the facility/site?

Who owns the facility or site (e.g., corporation, proprietorship, partnership, Federal or State agency, non-profit organization)?

How many years has the facility been in existence?

How many employees are there at the site?

Have any major modifications been made to the facility? Are any future modifications or expansions planned?

At what level of capacity is the facility operating? How many shifts? How many hours per day and days per week? What relationship does this information have to the inspection that was performed?

Which operations/processes/activities at the facility were examined during the inspection?

Which operations/processes/activities at the facility were not examined?

Inspection Activities

Records Inspection

Is there a general description of how records are kept at the facility?

What was the purpose of reviewing records?

What facility records were reviewed?

How were the specific records selected for review (e.g., was an auditing technique used, were all records reviewed)?

Are records that were photocopied or data manually copied from records adequately identified and documented?

Were any suspected violations found? (Each should be fully documented, making sure that all of the information required by the section below on suspected violations is included.)

Physical Sampling

What was the inspector's sampling plan for the facility/site?

What physical samples were collected at the site?

Are the sampling techniques used adequately explained?

Are all samples clearly tied to an identification number, location, purpose?

Are sampling conditions and other physical aspects of the sample (e.g., color, texture, viscosity) described?

Were any deviations from the sampling plan and/or standard operating procedures (SOP) adequately explained and documented?

Are chain of custody procedures documented?

Are the results of laboratory analysis clearly presented?

How do the sample results compare to permit limits?

Illustrations and Photographs

Are photographs taken during the inspection referenced? Properly documented?

Is there some information about the inspection that could be made easier to understand through a diagram or sketch in the inspection report?

If sketches, diagrams, or maps are used, is the scale and/or other relationships shown clearly?

Interviews

What are the names and titles of facility officials and other personnel who were interviewed?

Are their statements clearly summarized?

What are the names and addresses of any other individuals who were interviewed or who were witnesses?

Closing Conference

Is there documentation that required receipts for samples and documents were provided?

Is there documentation that facility officials were given an opportunity to make confidentiality claims?

Are statements the inspector made to facility officials regarding compliance status, recommending actions to take, or other matters noted?

Documentation of Suspected Violations

The heart of the inspection report is really the documentation and substantiation of suspected violations, which allows the Agency to determine whether a violation occurred, how and why it occurred, and its seriousness. This substantiating information includes all of the evidence of various kinds that has been collected. In an actual inspection report, some of the answers to the questions on the preceding pages might be answered in the portion of the report which discusses the evidence collected and other particulars regarding each suspected violation.

The inspection report should answer the following questions for each suspected violation.

Documentation of Suspected Violation

What regulation is suspected to have been violated?

What information proves that the cited regulation applies to the facility/site?

Using the elements of the regulation as a guide, what information proves that the suspected violation occurred?

What sampling methods (if appropriate) were used to determine that the violation occurred? Are any deviations from sampling methods adequately explained?

What information shows that possible exemptions to the rule do not apply?

Cause of Violation

Note: Not all programs require this information, but it may be useful even where not required for such purposes as negotiating an appropriate remedy and penalty and for planning future inspections. Causal information must be stated carefully so that it does not provide the violator with an excuse for the violation.

What information documents the possible cause of the violation (e.g., direct observations of guage readings, production logs, physical appearance of materials, statements by facility personnel)?

Is there any supporting information confirming/disapproving a possible claim of an upset or other exempt activity?

Other Mitigating and Aggravating Factors

The level of enforcement response is based on the seriousness of the violation. Civil penalty amounts are based on the gravity and circumstances of the violation, which is usually a calculation of the extent of the violation (e.g., amount of material involved) and the extent of the actual or potential harm that was or could be caused by the violation. This base penalty can be adjusted upward or downward based on such factors as past compliance history, or efforts made by the facility to correct the violation

The inspection report should contain information that will support the appropriate determination of the seriousness and extent of the violation as well as other information that might be useful in penalty calculation.

What is the seriousness of the violation (e.g., amount of emissions, length of time of excess emissions, nature of emissions, location of source, perceived public impact)?

What harm resulted or could result from the violation?

What efforts did the facility make to correct the violation?

How difficult will it be to comply (e.g., availability of technology, cost of complying, time required to correct the violation)?

What is the facility's past compliance history?

HANDOUT 15-2

SAMPLE INSPECTION REPORTS

This handout contains samples of actual inspection reports; only the names have been changed. Each of these reports is of acceptable quality, though each has its strong and its weak points.

Using the Inspection Report Evaluation Guide (begins on page 17-17 in the text), evaluate the sample reports.

- How well does each of these reports stack up against the evaluation guide?
- What are the strengths of each report? What problems can you identify?
- Which report provides the strongest support for case development? The weakest? Why?
- If you were the supervisor of report writer A, what feedback would you provide? To writer B? To writer C?

INSPECTION REPORT A: CASTINGS MANUFACTURING INC.

RCRA SAMPLING INSPECTION

This company manufactures steel castings for the railroad industry. The manufacturing facility occupies forty acres on the northeast side of Bigcity. The 12-1/2 acre landfill owned by the company is located in Rural County near Bubbatown to the southeast of the intersection of 4th and Main.

The purpose of this sampling inspection was to determine if waste generated and disposed of by this facility at its Bubbatown landfill is RCRA hazardous waste. The main wastestream in question is a mixture of electric arac furnace (EAF) dust and sand wash slurry. This dust/slurry mixture is claimed to be nonhazardous by the facility. Other wastestreams of interest are from the five other dust collectors at the facility.

On August 6, 1986, Jim Sleuth, Sam Tweed, and Mike Heard of the USEPA Regional Office and Jean Parker of the USEPA Regional Waste Management Division, conducted an unannounced sampling inspection at the above-mentioned company. We arrived at the company landfill on 8/6/86 at 0915 to wait for a truck to arrive from the company's manufacturing facility in Bigcity. A truck did arrive at 0925 but it was not hauling the type of waste desired to sample during the dump. It was later determined that this load contained dust collector fines. At 0945 another truck arrived at the landfill but it also was not hauling the dust/slurry mixture desired to sample. At this time, Mr. Apple and Mr. Banana of the company arrived at the landfill to inquire about the purpose of our inspection. We informed them that we wished to sample the dust/slurry mixture as it was being dumped into the landfill. Mr. Banana did not know if any of this mixture would be disposed of that day and he asked us to return with him to the Bigcity facility where he could determine when disposal of that material would occur. Before leaving for the landfill, samples 86EF10S01 and S02 (see Table 1) were collected of the two loads that were dumped that morning. These samples were split with the facility.

At 1115 a meeting was held with Mr. Cake, assistant works manager and Mr. Donut at the Bigcity facility. It was determined that the sand wash system was not generating any slurry that day and that we could not sample the EAF dust/sand slurry mixture until the following day. We then proceeded to collect samples S03-S06.

On August 7, 1986, Mr. Sleuth, Ms. Parker, and Mr. Heard returned to the facility in Bigcity and collected samples S07-S10 (see Table 1). It was observed that a tanker truck of sand wash slurry was mixed with a load of EAF dust at the facility. This truck was followed to the landfill, where it was sampled while it was dumped. Before being dumped a core of the top ten to twelve inches of the load was taken in a 2" diameter plastic tube; eight to ten inches of this material all appeared to be dry EAF dust. The bottom two inches was damp EAF dust (mixed with slurry). The contents of this core was used for sample S14. As the truck was dumping, five jars (one quart in size) were collected of the material coming out of the truck. The first two (chronologically) were composited and split as sample S13, the third jar was discarded and the last two jars were composited and split as sample S12. At the very end of the dump a quantity of dry EAF dust was observed to float out on top of the discharge. A sample of this dry material (S11) was collected from the top of the dumped material after it was on the ground. All samples collected except D09, S14, and S15 were split with the facility. The sampling results can be found in Attachment 1. Samples D09, S11 and S14 were all found to exceed the EPA Toxicity limit of 1 ppm for cadmium and 5 ppm for lead.

FIGURE 1

Landfill

August 6&7, 1986

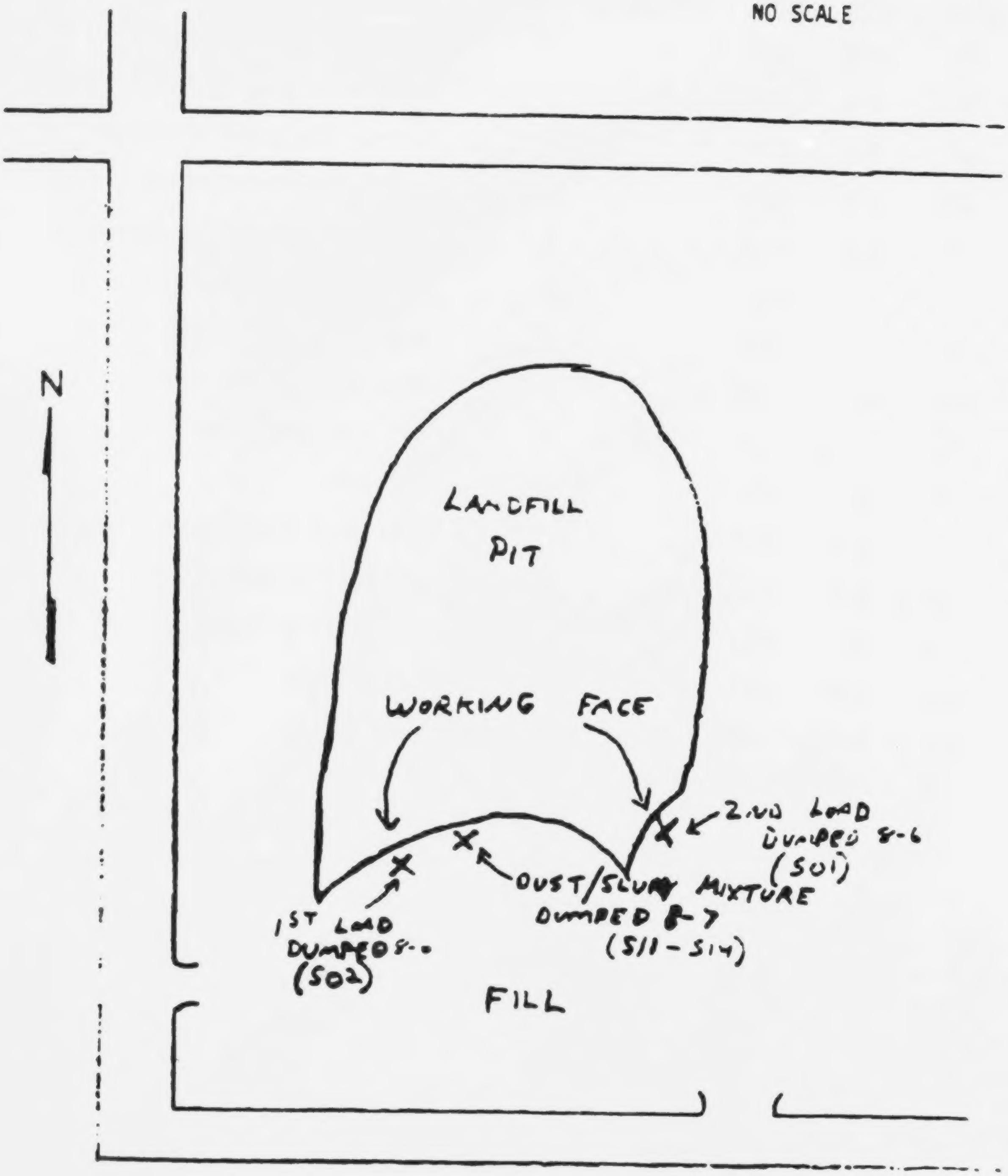

NO SCALE
N
LANDFILL PIT
WORKING FACE
2ND LOAD DUMPED 8-6 (S01)
DUST/SLURRY MIXTURE DUMPED 8-7 (S11-S14)
1ST LOAD DUMPED 8-6 (S02)
FILL

TABLE I

Sample Locations
August 6 & 7, 1986

STA. NO.	DATE 1986	TIME	COMPOSITE	GRAB	STATION LOCATION
S01	8-6	1006	X		Waste pile from load #2
S02	8-6	1030	X		Waste pile from load #1
S03	8-6	1327		X	Carrier blast dust collector
S04	8-6	1338		X	Knockout dust collector
S05	8-6	1415		X	Cabinet blast dust collector
S06	8-6	1425		X	Tumblast dust collector
S07	8-7	1045		X	South End sand system
S08	8-7	1100		X	Sand wash and wet scrubber slurry
S09	8-7	1100		X	EAF dust (duplicate)
S10	8-7	1300		X	EAF dust
S11	8-7	1420		X	After dump (dust/slurry mixture)
S12	8-7	1418	X		Last half of dump *
S13	8-7	1414	X		First half of dump *
S14	8-7	1410		X	Core of load *
S15	8-7	1700			Blank

ATTACHMENT 1

ANALYTICAL RESULTS OF AUGUST 6 AND 7, 1986, SAMPLING
(all results are in ppm)

Sample Number	Ag	Ba	Cd	Cr	Pb	As	Se	Hg	Fluoride	Phenol	Cyanide
Maximum Contaminant Level for EP Toxicity:	5.0	100.0	1.0	5.0	5.0	5.0	1.0	0.2			
86ER10											
S01	<0.006	0.047	<0.01	<0.008	<0.07	<0.002	<0.02	<0.0001	0.04	2.7	<1.0
S02	<0.006	0.058	<0.01	<0.008	<0.07	<0.002	<0.02	<0.0001	0.07	6.8	<1.0
S03	<0.006	0.028	<0.01	<0.008	<0.07	<0.002	<0.02	<0.0001	0.1	4.6	<1.0
S04	<0.006	0.150	<0.01	<0.008	<0.07	<0.002	<0.02	<0.0001	0.1	37.8	<1.0
S05	<0.006	0.049	<0.01	<0.008	<0.07	<0.002	<0.02	<0.0001	0.2	15.2	2.0
S06	<0.006	0.114	<0.1	0.08	<0.7	<0.002	<0.002	<0.0001	0.1	7.3	<1.0
S07	<0.006	0.118	<0.01	0.00892	<0.7	0.006	<0.002	<0.0001	0.2	68.2	<1.0
S08	<0.006	0.114	<0.01	<0.008	<0.07	<0.002	<0.002	<0.0001	0.2	15.6	2.0
D09	<0.006	0.950	4.32*	<0.08	14.1*	<0.002	0.012	0.0005	2.0	3.2	<3.0
S10	<0.06	0.796	4.3*	<0.08	14.5*	<0.002	0.04	0.0004	1.5	3.3	<1.0
S11	<0.06	0.329	1.01*	<0.08	24.4*	<0.002	0.007	0.0004	1.0	10	<1.0
S12	<0.006	0.130	0.0269	0.009	0.229	<0.002	<0.002	<0.0001	0.28	16.5	<3.0
S13	<0.006	0.836	<0.01	<0.008	<0.7	<0.002	<0.002	<0.0001	0.2	30.7	<4.0
S14	<0.006	0.715	3.13*	<0.08	11.3*	<0.002	0.025	0.0036	2.0	2.2	<3.0
S15						<0.002	<0.002				2.0

*Concentration over maximum contaminant level.

INSPECTION REPORT B: GRITTY WRECKING

December 2, 1987

NESHAP Asbestos Demolition Inspection -- Gritty Wrecking,
Urban, Michigan (A24535:00)

K. Eagle, Environmental Engineer
THRU: J. Medium

Engineering Section 5AC
ATTN: S. Boss

This is the first in a series of inspection reports intended to provide a complete discussion of a NESHAP inspection (asbestos removal) at the former Consolation Company ("the facility") located at 1521 East First St. in Smallerville, MI. The inspection was conducted on October 22, 23, 26-30, and November 2, 1987. An initial inspection of demolition occurring at the facility was conducted on October 22 and 23, 1987. On October 26-27, additional visits were made to the site to obtain measurements of the amount of suspected friable asbestos containing material (FACM) still in the facility and to obtain correct information as to which buildings were involved in the demolition project. Mr Linus Lip of the EDO was on site October 29, 30 and November 2, 1987, to oversee the entire asbestos abatement and to observe deposition of the ACM waste after removal.

Background information about the facility, notification, amount of asbestos present, work practices, worker safety and equipment, and waste handling at the facility are discussed in this report. Actual ACM removal by an asbestos abatement contractor occurred October 29, 30, and November 2, 1987, and all discussion of work practices, worker safety and equipment, amount of asbestos removed, waste handling at the facility and waste transport and disposal by the abatement contractor will be forwarded in a second report by Mr. Lip. Information about samples taken, sample analyses, and pictures of the site is provided in the attachments (Attachment 4 - Summary of Samples Taken; Attachment 5 -- Sample Analyses from Laboratory; Attachment 6 -- Pictures of Site).

Background

It is estimated that the facility was constructed in the early 1900s. The entire complex includes approximately 35 buildings and encompasses 365 acres. The portion of the facility inspected included building 2 through 8 at the west end of the complex, located at the corner of East First and East Front Streets (Attachment 1 -- Diagram of Complex). East of the facility is an industrial area and approximately one quarter mile to the west begins a residential neighborhood. Downtown Smallerville is located approximately one mile west of the facility. The city of Smallerville owns the complex and was contracting out groups of buildings for demolition.

On the morning of October 22, 1987, a call was made to the EDO from a contractor who had bid on this particular job but did not win the contract. The contractor stated that he had bid $90,000 to do the project, which would have included the asbestos removal necessary. He continued that Gritty Wrecking of Urban, MI, has won the contract with the city with a bid of only $24,000. He said the buildings were "full of asbestos" and that the project could not possibly be completed properly at that low a cost. I left that afternoon to inspect the site in Smallerville for possible noncompliance with NESHAP regulations regarding asbestos removal prior to demolition.

Notification

Attached is the building permit (Attachment 2) obtained from Michael Edifice, Director of Building and Zoning for the city of Smallerville, stating the buildings to be demolished by Gritty wrecking per the contract between Gritty Wrecking and the city of Smallerville (Attachment 3), and including the terms for the handling of asbestos in the subject buildings.

No notification of demolition or intent to remove asbestos was submitted to any appropriate Michigan agency or the federal government by Gritty Wrecking prior to beginning work.

Amount of Asbestos Present

Upon my initial inspection on October 22, 1987, I observed approximately 45-50 linear feet of pipe lagged with dry, suspected FACM in Building 2. In addition, I observed large amounts of dry, suspected FACM lagging and debris in the rubble below pipes in the same building. On October 23, 1987, I returned to the site and entered Building 2 with P. Gradey, Superintendent for Gritty Wrecking, to observe one of Gritty's employees removing asbestos. Inside I observed approximately 25 linear feet of suspected ACM in the immediate area. Mr. Lip and I returned on October 26, 1987, and entered what was left of buildings 2 through 7. Within these buildings we measured an additional 230 linear feet of suspected FACM lagging. There was also an open labeled asbestos waste bag filled with dry pipe lagging in Building 3, and dry, suspected FACM lagging and debris on the floors, walls, and fixtures in the buildings. We also observed seven bags of pipe lagging and three bags of a dry, suspected FACM sheet material outside against a fence on the site. The asbestos abatement contractor (Scrub Abatement) later estimated that there was at least 100 linear feet of lagging in those bags. When we entered the building gain on October 28, 1987, we found an additional 8 feet of pipe lagged with suspected FACM in Building 8.

Scrub Abatement had later been contracted by Gritty Wrecking to properly remove all of the asbestos in the buildings involved in the demolition project. Their notice of intent to remove asbestos stated that 397 linear feet had been found which did not include the material in Building 2 noted previously since most of that building had been demolished prior to Scrub's assessment.

Inspection

Thursday, October 22, 1987

As stated previously, a call was made to the EDO on the morning of October 22, 1987, regarding the possibility that violations of the NESHAP, specifically asbestos removal, might have been occurring.

Acting on the information obtained, I went to Smallerville, Michigan, to inspect the facility in question. I arrived at the site at 1615 EDT on October 22, 1987, and found no demolition occurring although there was a front-end loader there. I immediately observed pipes with dry, suspected FACM lagging in the partially demolished Building 2. As I walked closer to Building 2, I observed large amounts of white, friable, suspected ACM in the rubble. I estimated that 45-50 feet of pipe contained suspected FACM lagging in part of the Building 2 that was visible from the outside.

Five samples were taken from the material in the rubble and still on pipes (88EH01S01-S05), and four were analyzed as positive for asbestos (Attachment 5). Several pictures were taken of the building nd the suspected FACM (Attachments 4, 5, and 6).

Friday, October 23, 1987

On October 23, 1987, at approximately 0915 EDT, I returned to the site to see if there was, in fact, demolition in progress. I observed a man operating a front-end loader, knocking down Building 2. I also observed a second man using a torch to cut pipes in the same building. As the front-end loader was knocking down Building 2, I observed visible emissions. Sample 88EH01S06 was taken here later. Shortly after, the loader operator left Building 2 and proceeded to begin demolition on Building 4A.

I entered the site at 1140 EDT and spoke with the loader operator. He informed me that there was a man inside the building at that time removing asbestos from the pipes, but there was no foreman on the site at that time and he did not know when he'd return. I looked into the open end of Building 2 and saw a man using a torch but I did not enter at that time. I inspected the area of Building 2 where I had seen the loader working and found much more pipe lagging in the rubble there than on October 22, but no more lagging on the pipes above, which I had observed on those pipes the previous afternoon. I concluded it had been knocked down during demolition.

A short time later, the man that had been inside emerged from Building 2 wearing brown coveralls. There was no sign of a respirator. He introduced himself as Ernie McDoogle and produced his certification paper for asbestos handling in Michigan. He informed me that he was not removing asbestos but rather cutting down the pipes containing suspected ACM, which were to be disposed of in sections, pipe and lagging all together. He stripped off his coveralls, coated with white dust, hung them over the back of his truck, and prepared for lunch.

I sampled the material (88EH01S06) where I had previously seen the visible emissions; it was later found by the Central Regional Laboratory to contain 25%-35% amosite (Attachment 5). No foreman returned to the site and I left at 1300 EDT.

I returned to the site at approximately 1430 EDT, and spoke with Paul Gradey, Superintendent from Gritty Wrecking. He informed me that Ernie McDoogle was inside removing asbestos. I asked him what would be done about all of the pipe lagging laying in and around the rubble of Building 2 and he said he did not know about that. I asked him where the bags of asbestos that were in the back of his pickup truck were going and he said "In the river." Then he said they would be taken to Gritty's shop in Urban until they had a full load to transport to Payne Disposal in Oldville, MI. He asked me if I wanted to see the removal in progress inside and I followed him into Building 2. Inside I observed Mr. McDoogle removing suspected asbestos from piles (contrary to what he'd told me) wearing his brown coveralls, gloves, and dust mask. He had the pipes laying on the floor. He sliced open the dry lagging with a knife, peeled the two halves off of the pipe, and stuffed them into a labeled asbestos waste bag. He was not wetting the material and when I asked why, he said it was "wet enough." I observed visible emissions when he removed the lagging from the pipe, but I did not sample the material. In that immediate area, I observed approximately 25 feet of suspected ACM on pipes. I asked Mr. McDoogle if he had learned about wetting the ACM, the glove bag technique, and protective equipment worn during asbestos handling in his training course and he said yes. I left Building 2. I spoke more with Mr. Gradey outside and a short time later I left the site.

The five samples I obtained on Thursday, October 22 and the sample obtained on October 23, from where visible emissions were observed during demolition, were express mailed to the Central Regional laboratory in Chicago at approximately 1630 EDT on Friday, October 23, 1987. As indicated previously, analytical results are included in Attachment 5.

Monday, October 26, 1987

On October 26, 1987, at 1320 EST, Linus Lip of the EDO and I returned to the site. It was apparent that a considerable amount of demolition work had occurred between Friday (October 23) evening and Monday (October 26) morning despite Mr. Edifice's order to stop, because a large portion of Building 2 had been leveled. No one was on site but a claw was present beside the front-end loader which was at the site on Friday.

Mr. Lip and I proceeded to enter the facility. We entered through Building 2 and there we observed a 102-foot pipe that appeared to have recently had the suspected ACM removed. There were thread-like pieces of white material hanging from the pipe and pieces of dry, suspected ACM hanging on the wall and laying on the floor below the pipe. A sample was taken (88EH01S07) and confirmed to be 25%-35% amosite and 1%-5% tremolite-actinolite (Attachment 5). We soon found another 13 foot piece of pipe that matched the cut of the 102 foot pipe. We found four feet of pipe, with lagging, laying on the floor in a small room marked "Bathroom," but could not discern the area from which it had fallen.

We continued into the facility, into Building 3. In Building 3, we found what appeared to be a type of printing unit with suspected ACM-lagged pipes running from it and around it. There were also two vessels in that area wrapped with asbestos insulation (sample 88EH01S08). An open marked bag, containing dry, friable asbestos lagging (sample 88EH01S10A) sat near the printer. On a catwalk that ran along the east wall of Building 3, there was an asbestos sludge (sample 88EH01S09) that apparently had slumped off of the pipes above. Mr. Lip and I measured 197 linear feet of pipe lagging in Building 3. We exited the building and observed many more areas where suspected ACM lay in the rubble. Against the fence on the west end of the site, we observed ten marked clear, asbestos bags; two of them were open and they were accessible to the public. Seven of the bags contained pipe lagging and three contained chunks of dry sheet (sample 88EH01S11) about one-quarter inch thick. We did not find any more of the sheet material inside the building, and left the site.

At 1620 Mr. Lip and I returned to the site to obtain samples of the materials described above (Attachment 4 - Summary). We left the site at 1730 EST.

Wednesday, October 28, 1987

On October 28, 1987, at approximately 0800 EST, Linus Lip, Joe Lawstruck of the Office of Regional Counsel, and I returned to the site on the corner of East First and East Front Streets. We entered the facility through Building 2 to re-measure the amount of suspected FACM contained in all of the buildings (2-8) that Gritty Wrecking was contracted to demolish. Including the 197 feet Mr. Lip and I previously observed, we measured 286 linear feet of suspected ACM pipe lagging.

At 1030, Mr. Lip and I met with Mr. Lawstruck and Caroline Bernoose of the Air Compliance Branch; Kenneth Chalk, Vice President of Operations for Gritty Wrecking and his lawyer Frank Gradey; Mr. Edifice, Building Director for the city of Smallerville; the city of Smallerville's lawyer, Oliver Twist; and the Assistant U.S. Attorney, Harry Marvel, at the U.S. Attorney's office in Urban.

At the meeting, all parties discussed potential violation of the NESHAP that occurred at the demolition site and recommendations for the immediate correction of and compliance with NESHAP regulations governing asbestos removal as it applied to this demolition.

Mr. Chalk agreed to contact Scrub Abatement, an asbestos abatement contractor, to begin removal the following morning (October 29, 1987) of all ACM in the buildings concerned. Mr. Lawstruck, Mr. Lip, and I agreed under the condition that Mr. Lip or I were present throughout the ACM removal and disposal.

At 1530 EST, Larry Lip spoke with Mr. Chalk and confirmed that Scrub Abatement would arrive on site at 0730 on October 29 to assess the abatement job and begin removal of the ACM. Mr. Lip agreed to be present on site for the entire ACM removal period which occurred on October 29, 30 and November 2, 1987. The waste was transported to a landfill at 1530 EST on November 2, 1987.

A subsequent report will follow from Mr. Lip describing actual amount of asbestos removed, work practices, worker safety and equipment, waste handling at the facility , waste pickup, and waste transport and disposal at the landfill. Also, sample analyses of samples taken during ACM removal, and the field data collection checklists, will follow in Mr. Lip's report.

1: [illegible]

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAMS BIOLOGY

DIVISION/BRANCH ESD/EDC SAMPLING DATE 10/26/87 LAB ARRIVAL DATE 10-28-87 DUE DATE 11-7-87/ASAP*
DU NUMBER A306 DATASET NUMBER 4480 STUDY METRO WRECKING E. FIRST & E. FRONT STS. PRIORITY ~~2~~ 1 CONTRACTOR CRL

CRL LOG NUMBER 88EH01	SAMPLE DESCRIPTION	ANALYTICAL REPO NTS ASBESTOS UG/L 810201371	TAG. NO:
S07	HANGING ON WALL & ON FLOOR INSIDE BLDG	☒ 25-35% Amosite 1-5% Tremolite	5-30783
S08	LARGE VESSEL	☒ 5-10% Amosite 10-15 Chrysotile	5-30782
S09	SLUMMED ON CATWALK INSIDE BLDG.	☒ 25 50% Amosite	5-30784
S10A	OPEN BAG INSIDE BLDG. NEAR PRINTING UNIT - WETTED	☒ 15-25% Amosite	5-30785
S11	OPEN BAG OUTSIDE BLDG SHEET MATERIAL	☒ 15-25% Amosite	5-30786
S10B	OPEN BAG INSIDE BLDG NEAR PRINTING UNIT - DRY	☒ Not Analyzed	5-30787 sg *

10/29/87

*User did not have this sample on the request form. I took the information from the Chain-of-Custody sheet.
Sylvia Ruffin

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SUMMARY OF SAMPLES TAKEN

SAMPLE NUMBER	TIME	SAMPLE DESCRIPTION	SAMPLE ANALYSIS RESULTS
OCTOBER 22, 1987			
88EH01S01	1647 EDT	On red bricks	33%-40% Amosite
S02	1655 EDT	On pipe	32%-35% Amosite; 8%-12% Tremolite-Actinolite
S03	1705 EDT	On boards in rubble	20%-25% Amosite; 5%-10% Tremolite-Actinolite
S04	1730 EDT	In rubble	35%-40% Amosite
S05	1736 EDT	Brown fluffy	Negative
OCTOBER 23, 1987			
88EH01S06	1210 EDT	Where visible emissions observed during demolition	25%-35% Amosite
OCTOBER 26, 1987			
88EH01S07	1330 EST	Hanging on wall and on floor in building 2	25%-35% Amosite; 1%- 5% Tremolite-Actinolite
S08	1343 EST	Large vessel	5%-10% Amosite; 10%-15% Chrysotile
S09	1630 EST	Slumped on catwalk in building 3	25%-30% Amosite
S10A	1640 EST	Open bag in building 3	15%-25% Amosite
S10B	1640 EST	Open bag in building 3	Not Analyzed-Dry
S11	1710 EST	Open bag outside - sheet material	15%-20% Amosite; 1%- 5% Chrysotile

SUMMARY OF PICTURES TAKEN

October 22, 1987:

EDT

Picture 1	1647	On bricks, outside Building 2, Sample S01.
Picture 2	1647	Outside Building 2, in rubble.
Picture 3	1655	Pipe lagging in Building 2, Sample S02.
Picture 4	1705	On boards, in rubble, in Building 2, Sample S03
Picture 5.	1710	In rubble, in Building 2.
Picture 6 & 7	1712	On ground in Building 2.
Picture 8	1715	Pipe lagging in Building 2.
Picture 9 & 10	1720	Building 2.
Picture 11	1730	On ground in Building 2, Sample S04.
Picture 12 & 13	1732	Pipes in Building 2.
Picture 14 - 21	1735-1815	Rubble in and around Building 2.
Picture 22	1820	View of demolition site from street.

October 23, 1987:

EDT

Picture 23 & 24	1210	Building 2, where visible emissions were observed during demolition, Sample S06.
Picture 25	1515	Truck driven by Paul Garvaglia, asbestos bags in back.

October 26, 1987:

EST

Picture 26 - 31	1320	Appearance of Building 2 after the weekend.
Picture 32 & 33	1330	Inside Building 2, Sample S07.
Picture 34	1335	Inside Building 3.
Picture 35	1343	Large vessel inside Building 3, Sample S08.
Picture 36 & 37	1345	Pipes in Building 3.
Picture 38	1400	Rubble outside Building 2.
Picture 39 & 40	1405	Outside Building 5A.
Picture 41 - 45	1410	Bags outside, against fence, Sample S11.
Picture 46	1630	ACM slumped on catwalk in Building 3, Sample S09.
Picture 47 & 48	1640	Open bag of dry FACM in Building 3, Sample S10.
Picture 49	1655	Pallets in Building 5.

INSPECTION REPORT C: VIGIL CORPORATION

Compliance Monitoring Field Report

I. PERMITTEE IDENTIFICATION

Vigil Corporation
Half Road
P.O. Box 86
Nash, OH 34009
(216) 555-1990

NPDES Permit: OH0003298

Receiving Stream: Stevens Brook (Nash River to Lake Erie)

II. DATES OF INSPECTION AND SURVEY

August 18-19, 1987

III. PARTICIPANTS

A. Permittee

Joe Gruff, Environmental Engineer

B. Ohio Environmental Protection Agency - NEDO

Sam Power

C. U.S. Environmental Protection Agency - EDO

David General, Engineering Technician
Michael Shell, Environmental Engineer

IV. OBJECTIVE

The objective of this sampling inspection was to evaluate compliance with NPDES permit conditions and limitations, and to obtain analytical data on selected internal process wastewater streams.

V. DESCRIPTION OF PERMITTEE

A. Facility

The Vigil Corporation in Nash Township manufactures a variety of polymers of vinyl chloride and a vinyl acetate-vinyl chloride co-polymer. The market for these polymers include plastic pipe, medical tubing, records, and other products. The average daily production is about 275,000-300,000 lbs. Co-polymer production is about 20%-25% of the total plant production.

B. Plant Processes

Figure 1 shows a schematic diagram of the suspension polymerization process utilized at Vigil Vinyl chloride monomer is received by railcar at the plant. Polymerization is begun with a batch reaction of monomer, water, and several additives including catalysts, buffers, and emulsifiers in seventeen 4000-gallon reactors and one 6000-gallon reactor. The reaction lasts nine to twelve hours. At this time, polymerization is 93 percent complete. The unreacted monomer is steam stripped from the polymer slurry and recovered. The polymer slurry is centrifuged and dried in a rotary drum drier to a consistency of one percent or less moisture. This polymer cake is sifted and transferred to storage silos. The finished product is transferred in bulk from the silos to either railcars or trucks for shipment.

In addition to the production process operations listed above, other support processes are also carried out at this facility. These include:

1. A boiler house which contains three gas-fired boilers. The blowdown from this facility is treated at the wastewater treatment facility.

2. Water treatment - both the boiler feed water and the processing water are pretreated in a clarifier and filtered through both sand and carbon filters. The water is also passed through an ion exchange column and a zeolite softener. The backwash water from the filters is routed to the wastewater treatment facility along with regenerate wastewater.

C. Wastewater Treatment

Vigil obtains their raw water from Ashco and the Ohio American Water Company. Water usage averages about 400,000 gpd. Water usage based on historical figures are presented below.

Usage	% Total Volume
Process	60%
Boiler Feed	25%
Cooling Water	10% (recirculated)
Sanitary	2%
Miscellaneous	3%

Figure 2 contains a flow diagram showing the wastewater treatment system. This system contains a neutralization pit followed by five treatment ponds operated in series. The major wastewater sources to this system include flows from the preneutralization pit discharge, wastewater from the stripper, incinerator scrubber water, cooling water, and miscellaneous storm drain flows.

The preneutralization pit contains several flows which when combined neutralize one another. The flows to this pit include backwashes from the sand and carbon filters and regenerate waste from the ion exchange column. The regenerate wastes from the water softener are discharged directly to the neutralization basin.

Mono vinyl chloride (MVC) is recovered from several wastewater streams by stream stripping. These waste streams include: gasholder drainwater, flow from the gasholder knockout pot, and reactor rinse water. All these flows are discharged to the treatment system. The recovered MVC is returned to the reactors for processing to polyvinyl chloride (PVC).

The gases vented from the steam stripping are incinerated in order to reduce the concentration of MVC being discharged to the atmosphere. One of the combustion products is chlorine which combines with the scrubber water to form hydrochloric acid. This waste stream is neutralized at the neutralization pit with a lime slurry.

Sanitary wastewater from the plant flows through a septic tank, is chlorinated and is then discharged to the second aeration pond.

The sludge collected in the wastewater treatment ponds consists of PVC resin and lime. At the time of inspection, this dredged material was being stored adjacent to the treatment pond for its recovery and resale potential.

VI. DESCRIPTION OF USEPA SAMPLING SURVEY

Figure 3 presents the sampling locations of the USEPA survey. Site-specific descriptions are presented below.

A. Influent (Sample Numbers 87EB05S01, S03)

Composite (S03) and grab samples (S01) were collected from a neutralization tank prior to discharge into the treatment ponds. The composite sample was collected using ISCO sampler number 55 and apportioned for general chemistry, nutrients, metals, PCB/pesticides, and organics analyses. Grab samples were collected using a dedicated organically cleaned quart wide-mouth glass jar. Six individual grabs for volatile organic analyses were collected for compositing in the laboratory for one analysis.

B. Effluent (Sample Numbers 87EB05S05, S06)

Composite (S06) and grab samples (S05) were collected from the parshall flume of outfall 001 prior to discharge into an unnamed tributary of Fields Brook. The composite sample was collected using ISCO sampler number 54 and apportioned for general chemistry, nutrients, metals, PCB/pesticides and organics analyses. Six individual grab samples were collected for compositing in the laboratory for one volatile organics analysis. Total flow was determined for the 24-hour sampling period using the company-owned flow device at outfall 001.

C. Intake (Sample Number 87EB05S07)

Samples collected from a 3/8" pipe at the boiler house, consisted of one grab for general chemistry; nutrients; metals; PCB/pesticides; organics; and field parameters temperature, pH, chlorine, and conductivity; and six individual grabs for compositing in the laboratory for one volatile organics analysis. All samples were collected by placing the sample bottle directly into the flow.

D. Incinerator Scrubber (Sample Number 87EB05S08)

Sample was collected at a drainpipe petcock at the incinerator building. Six individual grab samples were collected directly for compositing for one volatile organics analysis.

E. Water Stripper Effluent (Sample Number 87EB05S09)

The sample was collected at a tap in a dedicated quart wide-mouth glass container and, because of high temperatures of the sample, allowed to cool somewhat before transferring the sample to the VOA vials. Three individual VOA grabs were collected for laboratory compositing into one analysis.

F. Centrifuge (Sample Number 87EB05S12)

Sample was collected at a sump where all centrifuge wastewater combines. Six individual grabs, collected for laboratory compositing for one volatile organic analysis, were collected in a dedicated quart glass jar first and allowed to cool before placing the sample into the VOA vials.

VII. GENERAL SURVEY CONDITIONS

A. Weather

Weather for the survey was warm with temperatures in the 80s and no precipitation. No bypassing was occurring within the WWTP. Split samples on the influent and effluent composites were provided to Vigil. Sampling equipment was completely operational. Custody procedures were maintained throughout the survey.

B. Production

PVC production prior to and during the USEPA sampling survey were within normal operating ranges (250,000-275,000 lbs/day). No co-polymer was produced during this period.

VIII. NPDES PERMIT COMPLIANCE

A. NPDES Permit

At the time of inspection, Vigil was operating under an expired NPDES permit. The current expired permit was issued in August 1978 with an expiration date of March 1981 and modification in March 1980. This permit contains relatively elevated discharge limitations for vinyl chloride (2 mg/L - 30-day; 6 mg/L - daily maximum). The permit needs to be reissued to reflect effluent limitations guidelines for the Organic Chemicals and Plastics and Synthetic Fibers Category which became effective on December 21, 1987, as well as any water quality considerations.

B. Permit Compliance

Self-monitoring data for 1987 were reviewed and are summarized in Attachments 1 and 2. The data indicate some monthly average BOD excursions during February, March, and June 1987. Other NPDES parameters were substantially within permit limitations for the reporting period reviewed.

C. Self-Monitoring Program

The Vigil self-monitoring program was reviewed with company personnel and results are summaried below:

1. Flow at outfall 001 is measured by a Palmer-Bowlus flume mounted on an 8-inch pipe. On occasion, the flow equipment is susceptible to flooding. Also, during the months of April and May 1987, the flow monitoring equipment at outfall 001 was out of service due to electric line problems. Power was restored in mid June 1987.

2. The existing expired NPDES permit requires a composite sample be taken for monovinyl chloride analysis. In a reissued permit, proper USEPA recommended sampling and analyses methodologies should be incorporated.

IX. RESULTS OF USEPA SAMPLING PROGRAM

Analytical results are presented in Tables 1-6. Analyses were performed at USEPA - Eastern District Office in Westlake, Ohio, and at USEPA - Central Regional Laboratory in Chicago, Illinois.

A. NPDES Compliance

A comparison of USEPA survey monitoring results and NPDES permit limitations are presented below. As there was no bypassing at the time of inspection, NPDES limitations at internal outfall 601 would apply to the discharge through outfall 001.

	NPDES Discharge Limitations				USEPA Survey Results	
	Concentration (mg/L)		Loading(kg/day)		Concentration	Loading
Parameter	30-Day	Daily	30-Day	Daily	(mg/L)	(kg/day)
Flow (MGD)	--	--	--	--	0.412 MGD	
BOD_5	20	33	32	54	5	8
COD	150	290	--	385	28	44
TSS	20	40	32	67	14	22
TDS	--	1500	--	2388	386	602
Mono vinyl chloride	2	6	3.3	10	ND(0.010)	--
pH	$6.0 < pH < 9.0$				9.05 s.u.	

The data show no exceedances of concentration or mass loading limitations for samples taken during the USEPA sampling survey.

B. Other Organic Analytes

In addition to NPDES parameters, organic analyses were conducted on samples taken of the intake, WWTP influent and effluent, and selected internal process wastewater streams described earlier (Section VI). A discussion of these analytical results follows:

1. Volatile Organic Analyses

Table 3 summarizes the volatile organic analyses. The data show that vinyl chloride was not detected in outfall 001 (WWTP effluent) at a detection limit of 10 ppb. Two volatile organic compounds were detected in the low ppb range: trichloroethene (1.8 ppb) and trans-1,2-dichloroethene (6.9 ppb). No volatiles were detected in the intake or field blank samples.

Samples were taken of the WWTP influent and the major in-plant wastewater streams in an attempt to quantify the source or sources of vinyl chloride and other volatile organic compounds to the wastewater treatment system. These data are summarized below for the volatile pollutants of concern.

Pollutant/Location	Flow (MGD)	Concentration (ppm)	Mass Loading (kg/day)
Vinyl Chloride			
Incinerator Scrubber	0.086	ND (0.010)	--
Water Stripper	0.058	50	11
Centrifuge	0.144	0.320	0.17
TOTAL			11.17
WWTP Influent	0.412	6.4	10

Pollutant/Location	Flow (MGD)	Concentration (ppm)	Mass Loading (kg/day)
Trichloroethene			
Incinerator Scrubber	0.086	ND (0.0015)	--
Water Stripper	0.058	1.2	0.26
Centrifuge	0.144	0.083	0.05
TOTAL			0.31
WWTP Influent	0.412	0.240	0.37
Trans-1,2-Dichloroethene			
Incinerator Scrubber	0.086	ND (0.0015)	--
Water Stripper	0.058	ND (0.075)	--
Centrifuge	0.144	0.0035	0.002
TOTAL			0.002
WWTP Influent	0.412	ND (0.075)	--

The data show a fairly good mass balance of major internal plant wastewater streams and WWTP influent. The data also suggest that the water stripper is the major source of volatile organic compounds to the WWTP.

2. Semi-Volatile Organic Analyses

Semi-volatile organic analyses are presented in Table 4. The data do not indicate the presence of significant concentrations of semi-volatile compounds in the intake, WWTP effluent, and field blank samples. Several tentatively identified semi-volatile compounds were listed for the WWTP influent sample ranging from estimated concentrations of 3.5-29 ppb.

3. Pesticide/PCB Analyses

Tables 5 and 6 present pesticide and PCB analytical results. The data show none of these compounds were detected in the environmental and field blank samples taken during the USEPA survey. Refer to Tables 5 and 6 for the corresponding detection limits.

C. Metals

Table 2 presents the results of ICAP metals for the USEPA survey. Copper was detected in the WWTP effluent at about 9 ppb. Zinc was not detected in any of the samples at a detection limit of 40 ppb.

X. SUMMARY OF FINDINGS

A. Based upon USEPA sampling of the WWTP effluent through outfall 001, Vigil was found to be within numerical limitations of their expired NPDES permit for the sampling period.

B. Vigil is operating under an NPDES permit which expired in 1981. The permit contains elevated concentration and mass loading limitations for vinyl chloride. The permit needs to be reissued based on an evaluation of water quality considerations and the effluent limitation guidelines for the Organic Chemicals and Plastic and Synthetic Fibers Category which became effective on December 21, 1987.

C. Based on volatile organic analyses of internal wastewater streams and the WWTP influent, the data suggest that the water stripper is the major source of vinyl chloride and trichloroethene to the WWTP.

D. PCBs and pesticide compounds were not detected in the WWTP effluent during the USEPA sampling survey. Semi-volatile organic compounds were not detected in the WWTP effluent. Two semi-volatile compounds were tentatively identified.

E. Flow monitoring equipment at outfall 001 is subject to flooding at high flow and precipitation conditions. During April and May of 1987, the flow monitoring equipment was out of service due to electric line problems which were rectified in June.

F. The NPDES permit requires a composite sample taken for mono vinyl chloride. The reissued permit monitoring requirements should reflect recommended USEPA sampling and analytical methodologies for this pollutant.

G. Vinyl chloride polymer production and WWTP operations were normal during the USEPA sampling program. During and previous to the sampling period, no co-polymer was produced. EDO intends to plan a Water-Division requested survey for FY 88 during a period where co-polymer production will be reflected in the wastewater discharges, as this has been considered a cause for BOD excursions in the past.

H. Wastewater treatment pond dredgings are stored on the bank adjacent to pond #1 for recovery. As this material dries out, it is susceptible to blowing wind resulting in fugitive dust.

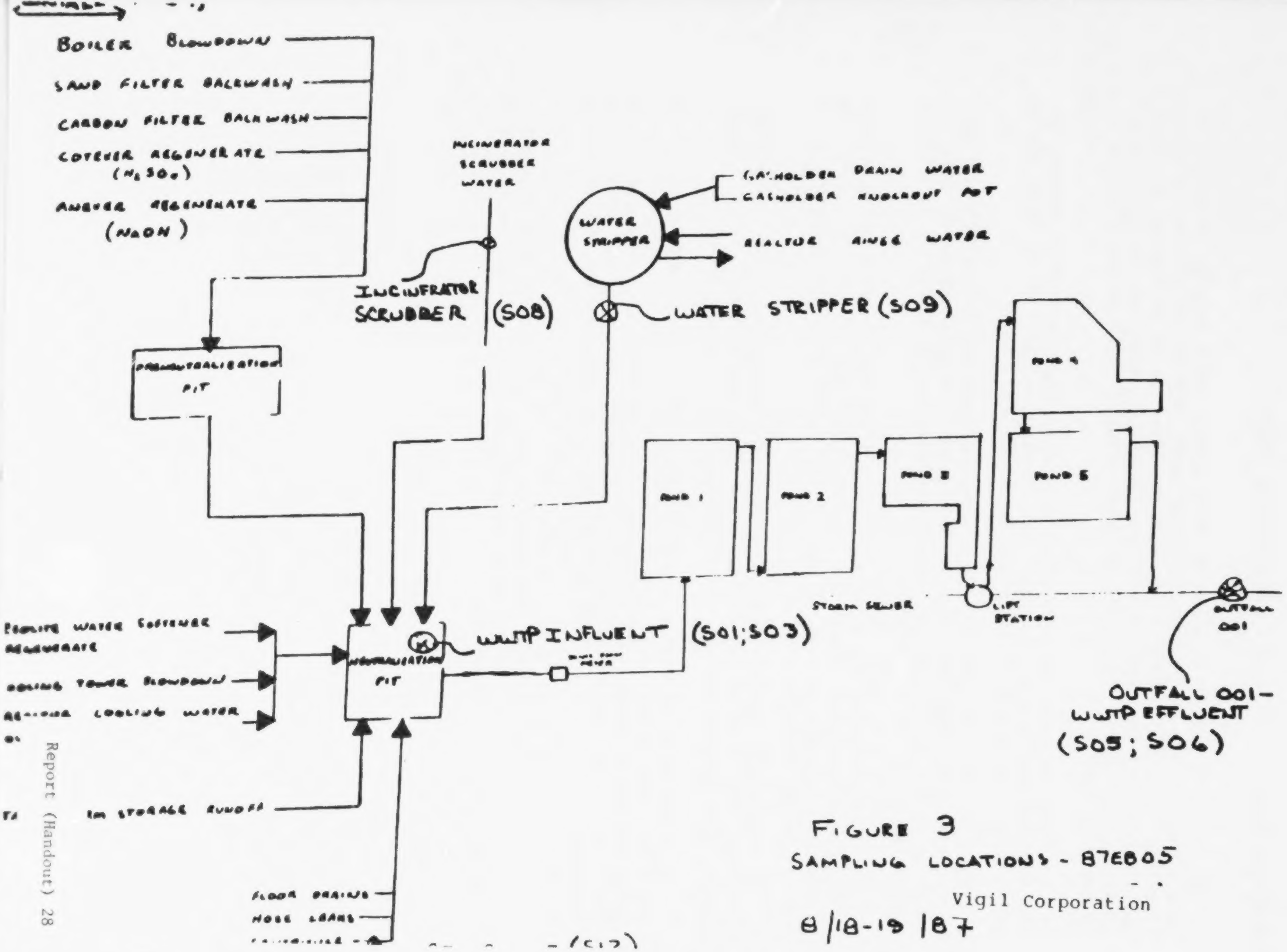
BOILER BLOWDOWN
SAND FILTER BACKWASH
CARBON FILTER BACKWASH
CATEXER REGENERATE
(H_2SO_4)
ANEXER REGENERATE
(NAOH)
DEMINERALIZATION PIT
INCINERATOR SCRUBBER WATER
INCINERATOR SCRUBBER (S08)
GASHOLDER DRAIN WATER
GASHOLDER KNOCKOUT POT
REACTOR RINSE WATER
WATER STRIPPER
WATER STRIPPER (S09)
ZEOLITE WATER SOFTENER REGENERATE
COOLING TOWER BLOWDOWN
COOLING WATER
STORAGE RUNOFF
NEUTRALIZATION PIT
WWTP INFLUENT (S01;S03)
FLOOR DRAINS
HOSE LEAKS
(S12)
POND 1
POND 2
POND 3
POND 4
POND 5
STORM SEWER
LIFT STATION
OUTFALL 001
OUTFALL 001- WWTP EFFLUENT (S05; S06)

FIGURE 3
SAMPLING LOCATIONS - 87E805
Vigil Corporation
8/18-19/87

ATTACHMENT 1

SELF-MONITORING DATA SUMMARY
VIGIL CORPORATION

Flow/Mass Loadings

Month 1987	Flow (MGD)		BOD (kg/day)		COD (kg/day)		TDS (kg/day)		Mono Vinyl Chloride (kg/day)	
	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.
January	0.407	0.534	31	47	104	156	763	858	0.215	0.404
February	0.444	0.500	41	53	143	189	923	1205	3.4	4.7
March	0.460	0.518	46	54	161	184	1053	1118	0.507	0.541
April	*	*	--	--	--	--	--	--	--	--
May	*	*	--	--	--	--	--	--	--	--
ne	0.500	0.552	35	51	98	124	790	893	1.41	1.67
August	0.475	0.662	11	15	60	85	829	1013	0.114	0.291
September	0.464	0.616	16	24	76	115	511	629	0.93	3.07
October	0.455	0.568	15	27	68	115	741	868	1.35	2.05
*NPDES Limits	--	--	32	54	--	385	--	2388	3.3	10

NOTES: *Flow monitoring equipment out of service.
**NPDES permit has expired.

ATTACHMENT 2

SELF-MONITORING DATA SUMMARY

Vigil Corporation

Month 1987	BOD (mg/L)		COD (mg/L)		TDS (mg/L)		Vinyl Chloride (mg/L)		TSS (mg/L)	
	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.
January	20	29	66	93	478	560	0.104	0.264	17	21
February	24	30	82	104	538	734	1.42	2.57	18	22
March	25	30	90	102	540	626	0.601	1.31	18	24
April	15	18	62	75	489	598	0.202	0.320	15	19
May	13	31	111	270	542	702	1.10	2.01	14	23
June	19	31	56	76	439	526	0.73	0.88	14	19
August	6	7	32	40	438	546	0.068	0.190	12	16
September	10	14	44	67	339	488	0.489	1.57	12	19
October	9	15	53	113	408	466	0.70	1.28	10	17
NPDES Permit Limits	20	33	150	290	--	1500	2	6	20	40

SESSION 15: INSPECTION REPORT

- Official Files
- Effective Inspection Reports
- Checklists vs. Narrative Reports
- Tips for Writing Inspection Reports

Text: Chapter 17

WRITE TO EXPRESS —
NOT TO IMPRESS

WRONG

Next I went to the warehouse where I discovered several drums on a forklift headed for the warehouse.

RIGHT

I observed drums being transported to the warehouse.

KEEP IT SIMPLE

WRONG

Several of these drums were placed on a forklift by the workers who were on duty at the time and taken to the warehouse that I have already described.

RIGHT

I observed drums being transported to the warehouse.

KEEP THE READER IN MIND

The A14 tank contained material more than 90 days after the "D" line shut down.

BETTER:

The out-of-service degreaser was storing hazardous wastes greater than 90 days after the unit ceased to be used for manufacturing.

WHO?

The degreaser mechanic.

BETTER:

Elvis Ferguson, the degreaser mechanic.

WHAT?

WRONG

If there had been a fire, no firefighter equipment could have been carried down the narrow aisle.

RIGHT

The aisle space between the drums was 16 inches wide.

WHEN?

WRONG

Mr. Ferguson called me and told me the hose had ruptured at 10:30. When I arrived, it was overflowing.

RIGHT

Mr. Ferguson called me at 10:45 a.m. He told me that the hose had ruptured at 10:30 a.m. When I arrived at 11:00 a.m., the secondary containment was overflowing.

WHERE?

WRONG

The tank behind the warehouse.

RIGHT

The 1000 gallon tank used to store chloride catalyst prior to recycling.

WHY?

WRONG

They ship drums to the warehouse because the storage area is so small.

RIGHT

Mr. Ferguson stated that drums are taken to the warehouse because storage area B is too small. Measurements indicate that storage area B is large enough to contain 6 drums. Plant records indicate that 8 drums a day are generated by the detergent 2 production line.

HOW?

WRONG

Appropriate drums are used to avoid corrosion.

RIGHT

The facility neutralizes hydrochloric acid on detergent line #1 in plastic “poly” drums.

AVOID THE "IT" HABIT

WRONG

I inspected tank A, still B, and lagoon C. It was overflowing and its secondary containment was indadequate.

RIGHT

I inspected tank A, still B, and lagoon C. Lagoon C was overflowing. The secondary containment around lagoon C was not capturing all of the overflow.

AVOID CARELESS PRONOUNS

WRONG

Mr. Ferguson and Mr. Johnson walked to the warehouse with me. He said they transported drums across a road.

RIGHT

Mr. Ferguson and Mr. Johnson walked to the warehouse with me. Mr. Johnson said the company transported drums across Scioto River Road.

BE CONCISE

WRONG

Write your sentences as short as you possibly can and avoid obtruse terminology.

RIGHT

Use short sentences and avoid unnecessarily complicated terms.

ACTIVE VOICE PROBLEM

It is recommended ...

BETTER:

I recommend ...

ACTION VERB PROBLEM

Distribution of pay checks is accomplished by the Treasurer's office.

BETTER:

The Treasurer's office distributes paychecks.

CONCISENESS PROBLEM

It is not considered that a detailed examination is necessary.

BETTER:

Detailed examination is unnecessary.

COHERENCE PROBLEM

Dead fish were found several days after the discharge on July 16.

BETTER:

Dead fish were found on July 16, several days after the discharge.

ANSWER TO REQUEST FOR INFORMATION

Receipt is acknowledged of your letter of June 18, 1968, relating to an investigation of Paul Smith in which letter you requested that John Jones be interviewed to determine whether he sold toxic chemicals to Smith in December 1967. You also requested that, if he had made such sale, an affidavit be obtained covering that matter. Enclosed you will find such affidavit.

BETTER:

Enclosed, in answer to your letter of June 18, 1968, is the affidavit of John Jones concerning his sale of toxic chemicals to Paul Smith.

BEGINNING A REPORT

As the result of a difficult inspection, which was assigned to me and is now complete, I have prepared this report to present the facts and evidence that were discovered with reference to an alleged violation of Section 301, Title III, of the Clean Water Act, relative to the unlawful discharge of a pollutant. This discharge, which occurred at a municipal waste water treatment plant, on December 5, 1968, was in Greenville, Illinois.

BETTER:

This report relates to an alleged violation of Section 301, Title III, of the Clean Water Act, by the municipal waste water treatment plant in Greenville, Illinois. This plant exceeded the limits of its NPDES discharge permit on December 5, 1968.

REPORTING INTERVIEW RESULTS

The plant manager was interviewed by the undersigned on December 17, 1968. When he was asked to elaborate by same, he could not give any reasonable explanation for the discharge.

BETTER:

I questioned the plant manager on December 17, 1968. He explained the discharge as follows: ----.

REASON FOR INSPECTION

It was reported by the Regional Office on November 30, 1968, that a letter was received bearing no signature containing the following information, "Mr. Administrator, something from that Greenville treatment plant smells bad, tastes worse, and is killing fish downstream." The letter, which had been prepared on a typewriter, apparently had been mailed in an envelope which was marked with a postmark of November 29, 1968. The letter and the envelope, which were addressed to the Administrator, are attached hereto and numbered as Exhibits 1 and 2.

BETTER:

On November 30, 1968, the Regional Office reported that it received an unsigned, typewritten letter (Exhibit 1), in an envelope (Exhibit 2) addressed to the Administrator and postmarked November 29, 1968. The letter stated:

"Mr. Administrator, something from that Greenville treatment plant smells bad, tastes worse, and is killing fish downstream."

SESSION 16
TOPIC: NEGOTIATIONS
INSTRUCTOR'S OVERVIEW

Time: 90 minutes

Purpose

Discuss role of inspectors in settlement and other negotiations

Provide tips for effective negotiations

Key Points

Prepare carefully; know all the facts and options. Resolve differences internally, not in front of the other side.

Most cases are settled through negotiation, not trials; therefore understanding negotiation is important.

Advance Preparation

Text reference Chapter 19B.

Make sufficient copies of handouts "The Unmanaged Negotiation" and "Crush and Destroy Negotiation." Provide "Unmanaged" to trainees the night before the session.

Refresh your memory about negotiations you have been involved in and make notes for use in illustrating successes and pitfalls.

Equipment

Overhead Projector

List of Visuals

16-A -- Topic Summary

List of Handouts

16-1 -- The Unmanaged Negotiation
16-2 -- Crush and Destroy Negotiation

Suggested Teaching Outline

Lecture: Introduction to Negotiation	15 minutes
Case Study: The Unmanaged Negotiation	30 minutes
Lecture: Managing Negotiations	15 minutes
Exercise: Negotiation Practice	30 minutes

INSTRUCTOR NOTES	SUGGESTED CONTENT
Introduction	Introduce yourself, including background, EPA experience, your role in the course.
LECTURE (15 min.)	**INTRODUCTION TO NEGOTIATION**
Overhead 16-A **Topic Summary**	Most EPA cases are settled through negotiation, not trial. A negotiated settlement is not an undesirable outcome -- it generally more favorable than trial; it is: • quicker • less expensive • less risky. It also produces more specific direction on what a company must do. EPA generally negotiates from a strong position and obtains the type of settlement sought. The inspector is the cornerstone of that strength since the documentation of violations stems from his or her reports -- good inspection reports lead to good settlements. An inspector needs negotiation skills because he or she: • May serve as a member of a team negotiating an enforcement case or settlement (or at minimum, will be involved in preparing and providing support to the negotiation team). • May need to negotiate with facility officials to gain consensual entry and work out other logistical aspects of the inspection. • Will frequently be involved in negotiations with program staff, attorneys, and technical staff on such issues as scope and objectives of an inspection, assignment of responsibilities to inspection team members, and deciding what enforcement action to take.

INSTRUCTOR NOTES	SUGGESTED CONTENT
	It is difficult to teach the art of effective negotiation, for it is a dynamic process dependent largely on personal style and learned through experience, but in this session we will try to pass on some pointers to aid inspectors in developing this skill. To set the stage, here are some key points to remember: • There are few hard and fast rules for successful negotiation. • Because each negotiation takes on a life of its own, there is no "right" settlement. • Negotiating is not selling out. EPA will enter a negotiation with some negotiable and some non-negotiable items. Neither side expects to get everything it wants, however. • Negotiation is not the antithesis of litigation. Most EPA cases are settled before (or during) litigation; however, the threat of litigation often pressures the settlement. • Negotiation may provide the best solution. It may be quicker and require less resources. EPA can leverage with tools not available in court (e.g., withholding a grant or not initiating debarment proceedings) and may be able to get the violator to do things the court would not impose.
CASE STUDY EXERCIES (30 min.)	**THE UNMANAGED NEGOTIATION**
The class should be given 10 minutes to review "The Unmanaged Negotiation" (Handout 16-1), which is based on pieces of real negotiations EPA has been involved in.	Because of the press of time, personnel changes, or a host of other reasons, a negotiation may be unmanaged in one or more aspects. The "Case of the Unmanaged Negotiation" that you read last night is an amalgam of several situations described to the authors by EPA participants in training courses. Take a few minutes now to refresh your memory about the case.

INSTRUCTOR NOTES

After the group has finished reviewing the case, ask the group to discuss the major mistakes EPA made and their consequences; solicit ideas from the group about how the problems encountered might have been avoided. Key points the instructor may wish to raise if not brought out by the group are shown in the Suggested Content column.

SUGGESTED CONTENT

Following are some of the things that went wrong in the Unmanaged Negotiation:

- EPA team did not have all the facts; did not review files or see inspector's notes, so did not know the true seriousness of the violations
- No agreed upon objectives and strategy
- Lack of internal discipline and rules (open caucusing in front of opponents)
- Logistical mixup set stage poorly for EPA
- No knowledge of violator's desire to get EPA permit and money, which would have been good leverage for EPA.

LECTURE (15 min.)

MANAGING NETOTIATIONS

Preparation

Preparation is the most important key to successful negotiation.

The inspection team should have members who are suited to the negotiation and can work together. Each major legal and technical area in the negotiation should have at least one person who knows it well; other support should be available.

The team should work out in advance with the "vertical hierarchy" (that is, the folks up the EPA line who must agree to the settlement) to provide needed support, agree on the objectives of the negotiation, and set up an ongoing line of communication.

Perform substantive research to determine what facts and laws are involved, and what other facts are needed.

Collect basic intelligence on the opposition. What are its likely issues? What leverage might EPA have?

During the Negotiation

An almost absolute rule is that the team must decide upon its course of action and resolve differences internally rather than in front of the other side. Caucus.

Caucuses can also be used to regroup after a surprise, to let tempers cool, to get information or opinions from experts not at the table, and to clarify negotiating authority with the bosses.

The vertical hierarchy must also be managed. This is often quite difficult, yet essential because they must approve the agreement. It is complicated by the fact that faces change. There are no quick answers, but they can be managed by:

- Communication
- Keeping them informed of developments
- Gaining their advanced concurrence for positions taken.

There may be other players at the table who need to be managed, such as State agency personnel as partners with EPA. This is more complex, but it is essential that the other side not be able to divide and conquer. Find the common ground.

There may be "phantom" players not at the table, such as congressmen and senators, public interest groups, and the media. The principal task is to make sure these players know they are not and will not be party to the negotiations, but they will be informed.

Negotiations are expedited by deadlines. EPA enforcement policy establishes time frames, but some judgment must be exercised such as when settlement is close. Provide action-forcing events and deadlines throughout the negotiation, not just for the end.

Generally, EPA has the most power in an enforcement negotiation. EPA can impose sanctions; grant, deny, or delay permits; order studies and disclosure of information; conduct endless inspections; make facilities ineligible for government contracts; and cause financially damaging publicity.

INSTRUCTOR NOTES

SUGGESTED CONTENT

The EPA negotiating team should project this power.

Remember the power of setting the agenda and the power of the first draft of settlement papers. (There are times, however, when it may be prudent to let opposition draft the first draft to give them a false sense of security or if they have a superlative drafter.)

EXERCISE (30 min.)

The purpose of this exercise is to provide practical experience in developing a negotiating strategy, since planning for the negotiation is the most important factor in successful negotiation.

Distribute Handout 16-2. Divide the trainees into groups of 4 or 5 people and ask them to plan a negotiating strategy for EPA.

After 15 minutes, reconvene the group, acknowledge that there was insufficient time to fully develop a strategy, and ask representatives from each group to explain their strategies.

CRUSH AND DESTROY NEGOTIATION

Planning the strategy for a negotiation is the most important factor in conducting a successful negotiation.

I am distributing a hypothetical case involving an air asbestos violation. Read the case, and then in small groups develop a strategy for EPA's conduct of the negotiation.

You are not likely to be familiar with the particular regulations and penalty policies involved, but you should be able to use negotiating principles to develop a strategy.

In the groups, you should discuss:

- Negotiable and non-negotiable items for EPA
- Strengths and potential weaknesses in EPA's position
- Options for required remedial steps
- Options for penalty adjustments
- An overall strategy

HANDOUT 16-1
THE CASE OF THE UNMANAGED NEGOTIATION

Sam Acosta has just become acting Chief of the RCRA Enforcement Section. Until now he was in the RCRA State Programs Section. He finds a short action memorandum on his desk from Bill Sanders, a RCRA inspector. The memorandum recommends that EPA issue an administrative order to a hazardous waste treatment facility called Treatment Supreme (TS) for interim authorization security requirement and manifest violations. Sanders wrote that during an inspection he observed a missing 25 ft. segment of fencing along a highway at the back of the TS facility. He also noted that TS had failed to note discrepancies on manifests for 75 shipments of one waste stream, where analysis performed by TS did not confirm that the waste was as represented by the generator. He attached a copy of the draft administrative order requiring restoration of the fence, prohibiting further receipts of the waste stream, and assessing a $25,000 penalty. Sanders noted that copies of the manifests laboratory reports were in the inspection file. Sanders has been IPAed to the State for a year.

Acosta signs off on the action memorandum and sends it to his boss. It is eventually sent to the Regional Counsel's office for legal review where it is assigned to Laura Smith. Laura's main job at EPA has been to handle the legal aspects of sewage treatment facility construction grants. This is her first enforcement case. She is instructed that the program office is responsible for substantive determinations and her role is to ensure the order is legally sustainable, to assist the program office in any resulting negotiations, and to represent the program office in any subsequent appeals. She reviews the order and action memorandum. She determines that the violations alleged are sufficient to support the remedies sought and are supported in the action memorandum. She compares the draft order with agency guidance and makes some changes to conform it to the guidance. She signs off on the order and it is eventually issued.

Guy Larado, outside attorney for TS, calls Laura to request a conference on the order, hopefully, to negotiate a mutually acceptable resolution. She indicates she must check Acosta's calendar and they arrange three possible times, depending on Acosta's availability. She calls Acosta, settles on a date three weeks hence, and makes arrangements to meet with Acosta that afternoon to review the case.

When Laura and Sam meet they review the action memorandum and order. Laura asks to see copies of Sanders' inspection report and the manifests at issue. She asks whether they can talk to Sanders, but Sam says he has been IPAed to the State. They agree that the case seems open and shut and that under EPA's penalty guidance they can only agree to mitigate the penalty down to $18,000. They agree that Laura will be the spokesperson in the negotiations. They tell both of their superiors that they intend to settle for the substantive relief set forth in the order and a penalty between $18,000 and $25,000. Their superiors concur.

As the date for the meeting approaches, Laura attempts to meet again with Sam, but they are both out of the office much of the time and do not connect. The day before the meeting she attempts to arrange for a conference room, but they are already claimed. Instead she arranges to meet in Sam's office, which is larger than her's.

On the date of the meeting Laura goes to Sam's office five minutes before the meeting, telling the main receptionist to ring her there when Larado and TS arrive. Larado, however, is familiar with the EPA office and proceeds directly to Laura's office, never coming close to the main receptionist. Laura's secretary is not there and no one knows where she is. Both negotiating teams remain in splendid isolation until Laura's secretary returns, discovers the situation, and calls Laura. Laura returns to her office, meets the TS contingent and escorts them to Sam's office. There are six of them: their plant manager, chief chemist, inside attorney, outside attorney, their customer's plant manager, and his attorney. There are only four chairs in Sam's office. Sam and Laura scurry around to find four more chairs. Sam sits behind the desk, Laura sits beside it and the TS Supreme contingent crowds in front of the desk, filling all the space between it and the door. The room is not large enough to hold them all comfortably.

Laura opens by introducing herself and Sam and inviting the TS contingent to do the same. She apologizes for the confusion and for the cramped quarters. She then outlines the violations alleged and the enforcement procedures. She emphasizes the Agency's view of the importance and gravity of the violations and states that EPA would like to see if there is a basis for settling the matter. She indicates the substantive violations must be corrected expeditiously. Finally, she states that "We really would like to get a penalty of around $18,000 to $20,000."

Guy Larado, the outside attorney for TS, opens with a statement that TS explained both situations to the EPA inspector when he was on-site and believe the complaint is a mistake. He asks whether the inspector is coming to the meeting. Acosta says the inspector has been IPAed to the State and is not available. Larado says that is a pity, since TS has already been through this with the inspector.

As to the fence, Larado said, there was indeed a 25 ft. section missing the day the inspector was there. It was missing as the result of an automobile accident on the highway. It was scheduled for repair within the week and was in fact repaired two days later. The fence, incidentally, was a 10 ft. high, electrified, chain link fence topped with concertina wire, a far more protective fence than was required or was customary in the trade. He produced pictures of the fence, a notarized affidavit from the repair company as to when it was repaired, and a copy of a letter to the inspector enclosing copies of the pictures and affidavit. Sam said that satisfied him that the violation had been corrected. Laura said that a penalty might be legally authorized, but that equitably it should be mitigated to zero since the hole in the fence had been caused by a third party beyond the control of TS. TS had scheduled its repair prior to the inspection and had repaired it immediately after the inspection, and the fence was far better than required by EPA's regulations. Sam said "I hear you. Let's talk about the manifest violation.

Larado said TS had discussed that with the inspector too. The waste stream in question was being delisted when the inspection took place and was subsequently delisted, so it wasn't a hazardous waste at all. TS's customer said that was right and produced a copy of the delisting document and accompanying Federal Register notice. Larado said that TS had written the inspector enclosing a copy of the delisting document and notice. Laura asked Sam if copies of TS's letters to the inspector were in his files, for they weren't in hers. He said he didn't know, but looked through his file and found both letters.

Larado said that TS could argue that since the waste stream was delisted by EPA, EPA acknowledged that it was never really hazardous waste, and therefore, TS never really violated the manifest requirements. He said TS would forego that argument for the sake of settlement, if EPA would acknowledge that, because the waste stream was not hazardous, the violations were technical and there was no damage done to the environment or the regulatory scheme and a *de minimus* penalty, if any, was appropriate. He offered $2500. Sam said that sounded fine to him, but that the violations found raised a question as to the integrity of TS's system for handling manifests and its waste analysis plan. Laredo answered that EPA's inspector had found no other problems but TS would hire an outside auditor to review its system and follow its recommendations if defects were found. Sam asked if TS would agree to put that in a consent order and Larado agreed. Larado said that there appeared to be agreement: they would settle on a $2500 penalty and an agreement to audit TS's manifest system and correct any deficiencies. At this point Laura said she thought EPA's penalty policy would require more than $2500 for the admitted violations. Larado said Sam had already agreed to the $2500 figure. Sam said he hadn't agreed to the figure, only that under the facts a relatively low penalty seemed appropriate. Larado asked how much and Sam asked Laura whether she thought $5000 would be enough. She said she didn't know. Larado said TS would write a check for $4000 and deliver it today to settle the matter. Sam said he didn't see how a settlement could be done so quickly, since it had to be signed off higher up. That usually took at least two weeks.

Larado, who this point had been soft spoken, polite and charming, became red in the face and began speaking with a louder voice, touched with anger. He protested that he had spoken at length with the inspector about the importance of a quick resolution of the matter. TS was about to close a major financing to construct three new state-of-the-art incinerators elsewhere in the next EPA Region to the east and had to certify a clean regulatory bill of health to secure the financing. He said the inspector had assured him that if EPA's negotiators could sign off on a settlement, the matter could be handled in a couple of days. Larado said he was dumbfounded that EPA would hold up so important a matter when it agreed the violations were trivial and of no consequence.

Sam asked Laura whether she saw any reason not to agree to the settlement outlined. She said she hadn't really seen enough of these problems to be sure. Sam said as far as he was concerned the violations, as explained, were technical, the solutions were adequate, and the penalty appropriate. Laura said he was the client and if he was satisfied, she was. Larado then drew a letter of agreement which both parties initialed and Laura agreed to turn into a consent order that afternoon. That afternoon Laura talked to Sanders, the inspector, by phone. He confirmed that he had indicated the possibility of quick action if agreement was reached, but said the agreement was inappropriate. The fence break had indeed been caused by an automobile accident and had been repaired immediately after the inspection. But the break had occurred four months previously and the repair was not ordered until after TS knew an inspection was scheduled. The fence was indeed far better than those around most disposal facilities. But it had been ordered by the State after previous fencing had proved inadequate to prevent repeated damage by vandals. TS was correct that the waste stream involved in the manifest violations was later delisted. But the real question was whether the shipments received really were of that waste stream or whether TS had been accepting a non-permitted waste. Indeed, Sanders wondered whether he hadn't made a mistake in not recommending action against TS's customer for sending a waste to a disposal facility not permitted to take it. He was surprised Laura didn't know this because most of it was in his handwritten notes that he was sure were in the file somewhere.

At this point, EPA's negotiating team recognized that it was in an embarrassing situation.

HANDOUT 16-2
CRUSH AND DESTROY

I. General Instructions

The facts below are based on parts of actual EPA cases, but the information has been modified and supplemented to facilitate this exercise. Participants should use only the information provided in this fact sheet along with their knowledge of the Clean Air Act and EPA regulations. While participants may have only limited specific knowledge of these requirements, they can use the general principles of negotiation to develop a strategy. Logical inferences may be made from the facts. The objective of this exercise is to reach agreement on a plan for conducting a negotiation with the defendant in the case described below. In developing the strategy, consider:

- What items are negotiable and non-negotiable for EPA.
- Strengths and potential weaknesses in EPA's position.
- The role (if any) of the State.
- Options for specific remedial steps to be required.
- Factors that could be considered in adjusting the penalty amount.

II. Facts

A. The Company

Crush and Destroy, Inc. (C&D) is a company which demolishes industrial and commercial structures. It has been in business about 20 years, operating in the State of Maryland. C&D is a closely held family operated business employing 10 people. C&D's gross revenues are about $400,000 per year, and its assets are slightly less than $100,000. Two years ago, the company earned $40,000. Last year, C&D lost $20,000.

B. The Violations

Several months ago, C&D was demolishing sections of an apartment building. In so doing it uncovered friable (crumbly) asbestos material. This fact became known to the tenants of the building who, concerned about the well publicized effects of asbestos, contacted EPA. Several days later EPA sent an inspector to the site. The inspector observed C&D's operation and noted several violations. First, C&D workers threw dry asbestos waste material onto the back of an open truck, and transported it to a local landfill where they dumped the material. These actions violated 40 CFR 61.147(e), which requires that asbestos waste material be kept wet until collected for disposal, and 40 CFR 61.152(b), which requires asbestos waste material to be properly contained, transported and disposed. Finally, C&D failed to notify EPA in advance of its demolition of the apartment building in violation of 40 CFR 61.146.

SESSION 16: NEGOTIATIONS

- Purposes of Negotiation
- Managing Negotiations

Text: Chapter 19B

SESSION 17
TOPIC: PRESS AND PUBLIC RELATIONS
INSTRUCTOR'S OVERVIEW

Time: 75 minutes

Purpose

Present techniques for handling press and other public inquiries related to an inspection

Provide practical experience in answering press questions

Key Points

Emphasize the positive!

Advance Preparation

Text reference Chapter 20.

Prepare for mock interview session. If possible, ask a person from the press office with experience as a reporter to participate. Prepare additional scenarios if desired.

Equipment

Overhead projector
Flip chart or blackboard

List of Visuals

17-A -- Topic Summary
17-B -- Emphasize the Positive!
17-C -- The Reporter's Viewpoint
17-D -- Talking with the Press
17-E -- Specific Techniques
17-F -- The Inspector's Positive Story

List of Handouts

17-1 -- Media Scenario, Instructions for D. Dooright
17-2 -- Media Scenario, Instructions for Mike Wallace

Suggested Teaching Outline

Lecture: Dealing with the Press and the Public	20 minutes
Mock Interviews: Role Play in Handling the Media	45 minutes
Discussion: Lessons Learned	10 minutes

INSTRUCTOR NOTES	SUGGESTED CONTENT
Introduction **Overhead 17-A Topic Summary**	Introduce yourself, including background, EPA experience, your role in the course. During this session, we will discuss techniques for handling the press and the public. At the end of the session, we will do some role playing.
LECTURE (20 min.)	**DEALING WITH THE PRESS AND THE PUBLIC**
Ask the trainees: "When would an inspector be dealing with news media?" List the answers on a flip chart. Then ask: "When would the inspector be dealing with the public?" List answers on a flip chart.	In any inspection, nobody is guilty until it has been proven through an enforcement action. This means that when we are out on an inspection, we can say nothing that implies a judgment. In criminal cases, the legal restrictions are even tighter. EPA's press policies outline what can and cannot be said; these are summarized in the text in Chapter 20.
Overhead 17-B **Emphasize the Positive!**	In dealing with the press, the key rule is: Emphasize the positive! There are two ways to handle an interview: You can be passive, just answering the questions and trying to skirt disaster when the reporter wants you to speculate or reveal information prematurely. Or you can be positive, using the questions as opportunities to tell the Agency's story. This session will show you how to stress the positive and make reporters happy. **Where Reporters are Coming From** Every reporter is under pressure from his or her boss to produce a usable story. Conflict politics make better stories than scientific facts. The reporter hopes the EPA inspector can provide part of that story. Reporters' needs are different: A newspaper reporter wants facts and quotes that can be used in print, and the deadline usually is around 7:00 p.m. for the morning papers. A television reporter wants a story with entertainment value, with a pictorial element that will look dramatic on the TV screen. Words are not enough, because the reporter has to show the story.

A radio reporter is trying to capture a story quickly and get it on the air in the next news break, less than an hour away. Sound is the reporter's medium, so a short, dramatic quote taped on the site may make a story fly.

All reporters cover viewpoints, not truths. While they tend to avoid the extremes, they look for definite opinions on an issue, not the absolute middle-of-the-road.

Overhead 17-C
The Reporter's Viewpoint

The inspector can help reporters by meeting their needs, even when their specific questions cannot be answered. The reporter can use your explanation of what the inspection is doing, why it is being done, and what will be done with the results, especially if you meet the different needs of the newspaper, television, and radio reporter in how you tell it.

Techniques for Talking with the Press

When you talk to the press, the most important point is: Know what you want to say, and use the interview to say it in a form the reporter can use.

1. Don't Speculate. Reporters speculate as a matter of course, and they will ask the inspector to speculate, too: "If you find TCE, are you going to recommend closing the drinking water supply?" Instead of joining in the speculation, the inspector should step back to the solid ground of what is known. You might say: "We don't know what we'll find here. But we're going to analyze it and take any action necessary to protect public health and the environment."

2. Avoid Jargon. The acronyms used so commonly in environmental agencies mean nothing to the public. (Most reporters are not scientists and technical explanations or jargon will mean little to them.) Don't hesitate to use the full term, even if it comes up several times. Speak as though you were explaining your work to someone you just met at a party.

INSTRUCTOR NOTES **SUGGESTED CONTENT**

3. Reject False Premises. Reporters sometimes ask questions involving a false premise, such as: "Ralph Nader has said that Superfund is a failure. So isn't this inspection just a meaningless gesture?" Respond by refuting the premise if you can and emphasize the positive. Such as: "I haven't seen Ralph Nader's statement, but it's clear that none of the Superfund sites in this region is an imminent threat to human health, and all of them are moving toward cleanup. It's a long-term process."

4. Speak on the Record. EPA's business is public business. If it can be told, it should be on the record. Off-record conversations can result in unnecessarily scaring the public before the whole story is in, and they also put EPA at a disadvantage in moving forward with effective responses to violations and other environmental problems.

Overhead 17-D
Talking with the Press

5. Know What You Want to Say. Even if the reporters have questions that you can't answer yet, you should have your own message you want to get across, with two or three themes. Keep coming back to these themes when you answer the reporter's questions. One theme could be the careful conduct of the inspection: thorough sampling, clean containers, chain of custody, careful laboratory analysis, consideration of the results.

6. Know When to Stop. When you have finished your point, stop talking. If the reporter does not immediately ask another question, do not feel that you must fill the silence, even if the microphone and camera stay on. A reporter may use this gimmick, hoping you will babble on and say something "interesting"!

7. Acknowledge Differences of Opinion. Get out in front of the story by telling the reporter if there is uncertainty or if different points of view exist. You don't want the reporter to learn about a controversy from somebody else and conclude: "That EPA inspector did a snow job on me." Emphasize that the Agency is considering all points of view, and acknowledge relevant uncertainties involved in the issue.

INSTRUCTOR NOTES	SUGGESTED CONTENT
	8. Make a "No Comment" Sound Like Something More. You create suspicion by saying "I can't comment." Instead, spin your answer out, such as: "We don't know what we're going to find, but we're making an inspection here about water quality, and we're looking at 100 possible contaminants. We're taking samples here, and these samples will go to our lab in Smithville for analysis ..." This way you give the reporter some usable information, without disclosing facts that are not ready for release.
Overhead 17-E **Specific Techniques**	9. What If the Reporter Goofs? If the story comes out wrong, or if you're misquoted, don't leap to the attack with demands for retraction or angry complaints to the editor. Reporters have a low tolerance for criticism. Getting on their bad side could hurt your Agency's future coverage. But the reporter is interested in getting the story right. Call on your press officer and discuss how to handle the situation. A method that often makes the best of a bad situation is to call the reporter and take part of the blame, such as: "I guess I didn't make myself clear. Did I really say that EPA was thinking of shutting down the water supply?"
Overhead 17-F **The Inspector's Positive Story**	Overall, the inspector's response to reporters can project a positive story about EPA's efforts to protect public health and the environment. It's not necessary to give out information prematurely or to speculate about the future, because reporters will use what inspectors can readily tell: What we are doing at a site and what our methods are. It's and interesting story to tell, and nobody but an inspector can tell it first-hand.

INSTRUCTOR NOTES	SUGGESTED CONTENT
MOCK INTERVIEWS (45 min.)	**HANDLING THE MEDIA**

Mock interviews are designed to give inspectors practical experience in dealing with questions from the press. They are done in television news style, with the instructor taking the role of the reporter. (If the press office can supply a person with reporting experience, have them play the reporter.)

These mock interviews can be particularly effective if they are videotaped.

This exercise should consist of several short interviews, leaving plenty of time in the classroom session for the trainees to react. The interviews serve primarily as a stimulus to the desired discussion.

After each interview, the instructor leads a discussion in which the trainees critique the interview. Emphasis should be on drawing the information from the trainees, because in this exercise they are applying what they learned from the text and lecture.

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
Distribute Handouts 17-1 and 17-2. Select 3-4 trainees to play the inspector. Have them leave the room to read the scenario while you explain it to the rest of the class. Then bring the trainees in, one at a time, to do the role play. Ask the trainee to critique his/her own performance first. Then ask the group to critique the inspector's performance. Did he/she reveal anything inappropriate? Were the answers given likely to satisfy the reporter? Citizens' groups? Was there anything else the inspector could have said or done to "lower the temperature?"	Background for the group: Read each scenario, Handouts 17-1 and 17-2.

DISCUSSION (10 min.)	**LESSONS LEARNED**
Ask the group to think about all role plays and summarize lessons learned.	What lessons could be drawn from this exercise that will help you in dealing with the press?

HANDOUT 17-1
MEDIA SCENARIO

Instructions for D. Dooright, intrepid EPA inspector

A public water supply well serving 15,000 people is found contaminated by TCE. The levels in the water are slightly under the two-year health advisory level for the chemical; the cancer risk at the level found is estimated to be 1 in 10/-6.

The source of the contamination is thought to be the Strangefellow Company, a small manufacturing company. The firm is a subsidiary of Swallow, Inc., a Fortune 500 company whose name is a household word. Swallow has environmental problems at several of their facilities.

The Strangefellow facility is the closest down-dip facility to the well that might be a user of chemicals like TCE, so an inspection was scheduled to see if it might be a user of chemicals like TCE, and whether it might be a source of the problem. Plant workers told you that they put containers of used cutting oil and solvents in back of the plant, and has been doing so for years. When you went out back to look, there was a pile of rusting containers. There was a strong chemical odor, so you went back to your car to get a respirator. You wore it while photographing the area and taking samples of the soil. You noted that the containers were marked as containing a variety of chemicals, including TCE. When you leave the facility, Mike Wallace of 60 Minutes is waiting for you with a microphone and TV camera.

HANDOUT 17-2
MEDIA SCENARIO

Instructions for Mike Wallace, investigative reporter for 60 Minutes

You have been investigating a story about Swallow, Inc., a Fortune 500 company, that has had many environmental problems. EPA has never taken the company to court; EPA has always negotiated a settlement with them.

You learn that a public water system well has been found contaminated with TCE, and that a Swallow subsidiary named the Strangefellow Company is suspected to be the source of the contamination. You are in town interviewing local citizens who are convinced that they are going to get cancer from drinking the water, even though EPA says it is "safe" for them to drink it.

You get a tip from a Strangefellow employee that an EPA inspector is at the facility, so you take your camera crew to the site to wait for the inspector to come out. You want to know:

- If Strangefellow is responsible for the well contamination.
- What the inspector found while he/she was there.
- Whether Strangefellow is violating the law.
- If the fact that the inspector was wearing a respirator doesn't prove that the site is dangerous.
- Why EPA won't shut down the well since people might get cancer from it.
- Why EPA never takes Swallow to court.

SESSION 17:

PRESS AND PUBLIC RELATIONS

- Dealing with the Press
- Role Playing Exercise

Text: Chapter 20

DEALING WITH THE PRESS AND THE PUBLIC

EMPHASIZE THE POSITIVE!

THE REPORTER'S VIEWPOINT

Goal: A Usable Story

Differences Among:

- Newspaper
- Television
- Radio

TALKING WITH THE PRESS

1. Know what you want to say
2. Use the interview as an opportunity to say it

EMPHASIZE THE POSITIVE!

6

SPECIFIC TECHNIQUES

1. Don’t speculate
2. Avoid jargon
3. Reject false premises
4. Speak “on the record”
5. Know what you want to say
6. Acknowledge differences of opinion
7. Make a “no comment” sound like something more
8. What if the reporter goofs?

THE INSPECTOR'S POSITIVE STORY

1. **WHY** we're at this site
2. **WHAT** we're doing here
3. **HOW** we're doing it

SESSION 18
TOPIC: APPEARING AS A WITNESS
INSTRUCTOR'S OVERVIEW

Time: 105 minutes

Purpose

Describe what to expect when appearing as a witness

Present tips for testifying at a deposition or trial

Demonstrate questioning, examination, and cross-examination

Key Points

Prepare well in advance. Don't volunteer information.

Advance Preparation

Text reference Chapter 19A.

Select a trainee who has already performed some inspection work (in advance of the course, if possible). Prepare that person to give testimony about a recent inspection. Prepare for examination and cross-examination as a demonstration for the class.

Equipment

Overhead Projector

List of Visuals

18-A -- Topic Summary
18-B -- P-R-A-S-S

List of Handouts

None

Suggested Teaching Outline

Lecture: Testifying at a Deposition, Trial, or Hearing	45 minutes
Demonstration: Examination and Cross-Examination	30 minutes
Discussion: Appearing as a Witness	30 minutes

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Suggested Teaching Outline

Lecture: Testifying at a Deposition, Trial, or Hearing	45 minutes
Demonstration: Examination and Cross-Examination	30 minutes
Discussion: Appearing as a Witness	30 minutes

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
Introduction	Introduce yourself, including background, EPA experience.
Overhead 18-A **Topic Summary**	In this session, we will discuss what happens when you must appear as a witness, and we will suggest techniques for being a more effective witness.
LECTURE (45 min.)	**TESTIFYING AT A DEPOSITION, TRIAL, OR HEARING**

The Federal Rules of Evidence and Federal Rules of Civil Proceeding govern the conduct of any Federal civil proceeding. Key rules related to witnesses are summarized below.

A witness gives testimony at a trial, under oath or affirmation, from personal knowledge (FRE 602, 603). There are four types of witnesses:

- Consultant: can be protected from discovery if behind-the-scenes (FRCP 26(b) (4)).
- Expert witness: has scientific, technical, or other specialized knowledge that would help the judge or jury understand; can provide testimony on facts, provide opinions on facts not in evidence, and even offer an opinion on the ultimate issue of the case (FRE 702 704). An inspector might be an expert witness in an area of technical expertise.
- Client or policy-maker: in EPA, generally the supervisor or managers above the inspector and others directly involved in the case. Their knowledge is generally protected from discovery under several privileges, e.g., attorney-client.
- Fact witness: testifies as to what he or she learned through the use of his or her five senses; the usual role for the inspector. Under the FRE, a "foundation" must be laid before the inspector can testify.

A principal tactic trial attorneys employ is to call into question the credibility of the witness of the opposing side. The purpose of "impeachment" is to reduce the likelihood that the judge or jury will believe the witness. Some of the bases for impeachment include:

- Biases or interest (family relationship, business tie, etc.)
- Lack of opportunity to perceive (distance too great or light not sufficient to see)
- Inability to recollect (poor detail that can't be refreshed because of incomplete notes)
- False testimony (testimony stating that standard procedures were followed but records are produced showing otherwise)
- Corruption or likelihood of false testimony (acceptance of bribe, subornation of perjury)
- Mental or physical incapacity, but not amounting to incompetency (sick, tired)

"Hearsay" is an out of court statement offered in court for the truth of the matter asserted. It is commonly thought that hearsay is inadmissible, but there are exceptions:

- A verbal statement made to the witness by the defendant, or his representatives or employees, is generally admissible.
- Business records, written statements, and official reports made by other than the witness are technically "hearsay" but generally are admissible.

Depositions

Depositions are statements taken under oath and "on the record." They are one method used by the opposing side to get more information about the government's case.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

Depositions take place outside the courtroom, usually at the office of the opposing counsel. Attorneys for both sides and a court reporter are present. Do not proceed if your attorney is not there.

If an inspector is subpoenaed for a deposition, contact the appropriate EPA attorney immediately. Time will be short -- for either preparation for the deposition or for EPA to quash the subpoena.

The inspector must answer questions honestly and completely, but the inspector does not have to tell the story. Make the attorney work for it -- the inspector should not volunteer information.

Preparation for the deposition is the key:

- Review documents, and if required by the subpoena, compile and produce it
- Plan how to respond to the likely questions but do not take extra notes with you
- The inspector and attorney must discuss how to deal with the more difficult concepts of the testimony.

Overhead 18-B
P-R-A-S-S

Tips for giving depositions:

- Everything that is said is on the record, and may even substitute for live testimony.
- Speak as clearly as possible. The court reporter must be able to understand, e.g., the difference between PVC and PCB. Provide a glossary of technical terms to the reporter if possible.
- There are many interruptions, like debates between the lawyers. Say nothing until instructed by your attorney to proceed.

- Beware the "eye of the record" for body language, etc. The opposing attorney only need say "the witness conferred with counsel before answering" and it is on the record.

- Be as descriptive as possible in referring to exhibits or photographs, e.g., "In the upper right hand corner we see..." rather than "Here we see..."

- Do not discuss the subject of the deposition with anyone during breaks (except your attorney in private surroundings). Off-hand remarks can be placed on the record merely by the opposing attorney saying "Isn't it a fact that during the break you said...."

- Always pause before answering a question so your attorney has time to object.

- Listen carefully to the question and ask to have it repeated if necessary.

Testifying in an Enforcement Proceeding

Preparing for Testimony:

- Preparation begins the moment the inspector begins planning the inspection. From that moment, everything he or she hears, sees, reviews, samples, records, etc., is potential evidence.

- The inspector and attorney must work together to:

  - Review inspector's evidence and prepare testimony within the theory of the case

  - Get to know each other

  - Prepare the inspector for what to expect.

- Preparing and using exhibits and graphics can help the inspector remember what is to be said.

- Be rested and dressed appropriately on the day of testifying.

Tips for Direct Examination:

- Listen to the question.
- You don't have to remember everything that is to be covered. Just answer the questions. The attorney's job is to ask the right questions.
- Eye contact with the judge or jury helps to persuade.
- Be sensitive to the rhythm. Short questions and short answers build a rhythm and a story emerges. Try not to let opposing attorneys break the rhythm.
- Be objective and straight-forward. Convey the "I'm just doing my job" image.
- A good direct examination introduces a subject and then through short questions elicits the evidence in succinct answers in a logical order.
- Key words and signals to help the inspector give the testimony should be worked out in advance. An example is "Is there anything else?" would be a signal to the inspector that something has been left out; the inspector should not immediately say "no." If the inspector still can't recall, the attorney might even risk an objection by asking an improper question. Listen -- the "improper" question will include key words on what the inspector forgot to cover.
- The first few questions will be along the lines of asking for name, occupation, length of employment, etc. This is to give the inspector time to get used to testifying.
- In the second line of questioning, the foundation for the inspector's testimony is laid. Usually, this is chronological. As the testimony progresses, exhibits are entered and discussed.
- Stay within your limits of expertise and knowledge.

INSTRUCTOR NOTES | **SUGGESTED CONTENT**

- There are always weaknesses in the government's case to be dealt with. Inform the attorney of any problem in the case as soon as possible; there should be no surprises at the trial. The attorney can figure out how to handle and compensate for the weakness.

Cross Examination:

The purpose of cross-examination is to diminish the strengths and amplify the weaknesses of the opposing side.

A skilled cross-examiner can "go for the throat" (but fortunately, most attorneys have difficulty with cross-examination).

Stay cool and neutral; if you are being battered, your demeanor will bring sympathy.

Leave the adversarial work to the attorneys.

Most cross-examination will focus on:

- Your past experiences, including occupation, associations, education, training

- Your observations, memory, and accuracy of recollection

- Active motive, bias, or prejudice you might have.

The litigation team will prepare you for this.

Questions during cross-examination try to force the witness into a "yes" or "no" answer. If you are cut off, your own attorney will get an opportunity to redirect.

Tips for dealing with cross-examination:

- Listen carefully to the question, pause, and answer succinctly. Ask for clarification if you do not understand.

- Don't volunteer any information that is not required by the question.

- Listen for inaccuracies and correct them before answering.

INSTRUCTOR NOTES	SUGGESTED CONTENT
	• Refresh recollection through documents rather than respond with an inaccurate or wrong answer. • Don't look at your attorney for help! Redirect Examination: Redirect is limited to the issues raised during cross-examination. Its purpose is to give the witness' own attorney an opportunity to counteract or diminish any damage done during cross-examination. Witness Demeanor: Your posture, speech, and appearance will enhance or detract from your credibility. Be professional.
DEMONSTRATION (30 min.)	**EXAMINATION AND CROSS-EXAMINATION**
The purpose of this demonstration is to give inspectors an idea of the type of questions and atmosphere they are likely to experience when appearing as a witness. It requires advance preparation on the part of the instructor and the witness, who will testify about an inspection he or she has performed.	

INSTRUCTOR NOTES **SUGGESTED CONTENT**

The attorney-instructor should select as a witness an inspector who has had some inspection experience. The inspector can either be another instructor (this has the advantage of being able to be repeated at future courses) or one of the inspector-trainees (this has the advantage of providing some hands-on experience). An inspector-trainee can be selected in advance, such as the week before the course or early during the course, to allow for some advance preparation by both the attorney and the inspector.

The attorney-instructor should prepare for both direct and cross-examination of the witness. During the demonstration, the instructor might want to stop periodically and explain what is happening, such as laying foundation, attempt to impeach, providing key word clues to the witness, etc. The attorney may also wish to point out when a particular Rule of Evidence is being used to advantage.

INSTRUCTOR NOTES	**SUGGESTED CONTENT**
DISCUSSION (30 min.)	**APPEARING AS A WITNESS**
Discuss the demonstration and answer any questions.	What lessons were illustrated that will help you be a better witness.

SESSION 18:

APPEARING AS A WITNESS

- Testifying at a Trial, Deposition, or Hearing
- Demonstration

Text: Chapter 19A

P-R-A-S-S

Pause

Responsive

Accurate

Sincere

Succinct